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BULLETIN

NORTH CENTRAL REGION

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NO. 5

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RW

CUT FOOT SIOUX RANGER STATION - BUILT, 1912

FOREST SERVICE
CENTRAL STATES FOREST EXP. STATION
COLUMBUS, OHIO
OCT 10 1935
RECEIVED

Answered





THE FORCE ON THE SUPERIOR IN 1909

Upper row, left to right, are: Alex Cummings, John Handberg, Chas. Taylor, Leslie M. Brownell and Mel. J. Cummings. Seated are Calvin Dahlgren, Scott Leavitt and Guy M. Terry. All but Acting Supervisor Leavitt were at first Guards, and he gave them the ranger examination at Ely. Inset, lower left, shows Scott Leavitt today; inset, upper right, Mel. Cummings.



BACK TRACKING TO THE SUPERIOR

BY SCOTT LEAVITT - R.O.

As long ago as May 1 of 1909, I reported at Ely, Minnesota, as a ranger assigned to help Lumberman John S. Baird put the very recently created Superior National Forest under administration. Again as recently as the 25th day of this February, 1935, I reported to the Regional Forester at Milwaukee to assume charge of the Branch of Public Relations. Thus, I am both an old timer and a newcomer in the Region.

In 1909, Region 9 did not exist as a separate administrative entity. Of its present 15 National Forests and Purchase Units there were only the Chippewa, then called the Minnesota; the original Superior; and the Michigan-Marquette, now included in the Huron and the Marquette division of the Upper Michigan. They were administered as parts of "District" One, with headquarters at Missoula, Montana.

The Minnesota (Chippewa) National Forest was one of the older Forests, but in 1909 the Superior was brand new. Its proclamation was dated February 13 of that same year.

I transferred to the Superior from the Fremont Forest in southeastern Oregon, where I had been a ranger since 1907. The journey was from Lakeview, Oregon, all day and all night by stage and livery to Madeline, California; and thence by rail and frequent changes through Reno, Nevada, and Ogden, Utah, to Missoula.

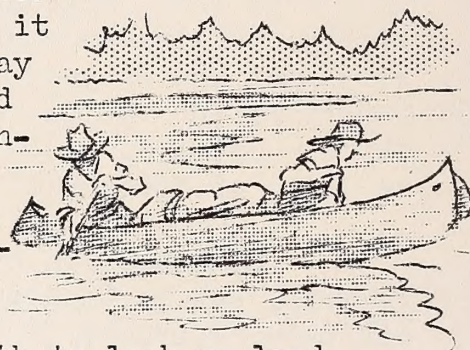
Forest Service history was in the making at Missoula. Three men destined to become Chiefs of the Forest Service were working in that one District Office. Wm. B. Greeley was District Forester. R. Y. Stuart was Assistant Chief of Operation. F. A. Silcox, our present Chief, was Assistant District Forester, which corresponds to the Associate Regional Forester of today.

District Forester Greeley sped me on my way with a letter to Mr. Baird. "Dear Mr. Baird", it read: "This will introduce to you Mr. Scott Leavitt who has been assigned as Forest Ranger to the Superior National Forest effective April 21. I am sure Mr. Leavitt's experience as a ranger on the Fremont National Forest and his familiarity with local conditions in Michigan will enable him to be of material assistance to you in the administration of your Forest."

I still have that letter of introduction, with a note written on it by Mr. Baird; and an old Forest Service diary which tells of my arrival at Ely on the 1st of May. That diary also records the first public relations work which I did in this Region. It says that on the 10th of May I "went to the High School with Baird, Dahlgren and Eisenach, and addressed pupils on plans and purposes of the Service".

John S. Baird was first in charge, but in about 10 weeks he was transferred as a Lumberman to the Deerlodge Forest in Montana. From July 15, 1909, until April 21, 1910, when I also was sent to Montana (to become Deputy Supervisor on the Beaverhead, shortly thereafter Supervisor of the Lewis & Clark, and eventually Supervisor of the Jefferson). I was Acting Supervisor of the Superior. On April 21, 1910, I turned the Superior over to J. A. Fitzwater, who is now a Forest Inspector out of the Washington Office, and left that glamorous land of forest-encircled lakes for the glory of the western mountains.

There were no highways into the Superior region in 1909. Except for a few short stretches between local points there were no roads at all, and the Iron Range Railroad up from Duluth gave the only access to Ely. Even more than today, we travelled an undisturbed wilderness by canoe. In my old diary I find interesting records of that early work. One page of it tells of a fifty mile journey by canoe in one day in the company of Ranger Terry, who later worked with me in Montana, with two lightning fires controlled on the way. Another tells of stopping early of an afternoon at a sand beach on Lac la Croix, where a hole could be dug under the camp-fire to bake a pot of beans.



Later that same month, a journey to Duluth to look up land titles brought me my first acquaintance with Wm. L. Barker, Jr., who now is in the Regional Office at Milwaukee. My diary records that I met him on June 27, and it continues: "got Barker to help in Land Office in afternoon at \$2.50 per day". He and I did some title work in about four days, which resulted in saving a rich tract of fine timber land for the National Forest.

I have also an old "Field Program", dated November, 1909. It shows me as Acting Supervisor of the Superior National Forest, and it tells also what several interesting forestry personalities were doing at that time, some of them who still are at work in the profession within the territory of this Region.

Raphael Zon, now Director of the Forest Products Laboratory at Madison, is shown as Chief (in the field) of Silvics in the Washington Office, and S. T. Dana, now Dean of the Forest School at the University of Michigan, was his assistant and Acting Chief. A. G. Hamel, now Regional Chief of State Relations, was a Forest Assistant (Junior Forester) engaged in silvical studies at the Fremont Experiment Station in Colorado. Paul D. Kelleter, now Supervisor of the Clark in Missouri, was Supervisor of the Black Hills National Forest in South Dakota.

Not from that Field Program but from a clear memory, I recall another who still honors the Service in this Region, - the veteran Ranger Mel Cummings of the Chippewa, on detail to the Ottawa. I remember that I gave him his ranger examination in the late summer of 1909, at Ely. Of all that original force of the old Superior, he and

I are the only ones now in the Service. We are truly pioneers of Region Nine.

Those old diaries and the Field Programs are veritable storehouses of history and memory. In the envelope in which I found them I discovered a letter written to me at Ely by Gifford Pinchot, the first Chief of the Forest Service. In part that letter reads:

"The thing I want to say is that I am counting on you to stand by the Service. ***** The biggest and best thing about the Service is the loyalty of the men. ***** You are working for all the people of the United States and that is worth while."

It was then, and still is, worth while.

* * * * *

MASTER PLAN SCHOOL ON THE CHIPPEWA

Clarence D. Chase
Technical Foreman (Jr. For.) - Chippewa

A school for study of the Master Plan was held at the management branch of Supervisor Walley's office. Representatives of each ranger, inspectors and heads of the various departments were present for the all day session, Monday, July 15. The meeting was opened by Assistant Supervisor Harrison, outlining the purpose of the school.

Mr. Chase, who is in charge of the Master Plan activities on the Forest, outlined the need for, and the place of the Master Plan. He outlined the plans for the establishment of this intricate system and pointed out how responsibility would fall on those present during the next six months. Mr. Freeman, who is in charge of reforestation on the Forest, next discussed how the Master Plan preparation would be taken care of in his department. Mr. Juntunen lead a discussion of the timber stand improvement and stand protection (from rodents, insects and disease) section of the Master Plan. Mr. Ferguson presented the wild life branch with an outline of the activity needed in the near future. Mr. Price explained the recreational plans for developing the Chippewa National Forest into one of the favorite play grounds of the nation. Mr. Sluzalis, who is in charge of acquisition and rehabilitation, lead a discussion on the plans needed to realize the Foresters objectives in helping with the relief and rehabilitation problems.

The all day session was brought to a close by Mr. Chase who pressed the urgency of immediate and concerted action in carrying out the various activities so that the preparation of the Master Plan for the Chippewa would progress rapidly and efficiently.

The
O T T A W A

1.

The blue of Lake Superior
Its wild and rugged shore,
The pungent tang of pine trees,
Each passing breeze once bore.
Pine and spruce and tamarack,
Maple and birch and beech,
Lifted their leafy branches
The pioneers to greet.

2.

The black-robed Jesuit Fathers
These hills and glens once trod,
The miners searched for silver
Beneath its emerald sod.
The elk and moose and caribou,
The partridge and the bear,
The rainbow, brook and grayling
Called this their native lair.

3.

Then came the rugged logger
In search of soft cork pine
And left a desolate hillside
Where once it was sublime
The hardwoods quickly followed,
And each succeeding year
Found charred and burning embers--
A nation's funeral pyre.

4.

The timber was exhausted
And the second growth died
Because the great red-monster
Ebbbed back and forth in tide.
And desolation extended
From shore and lake and hill
Until a weary people
Cried out--"We've had our fill".

5.

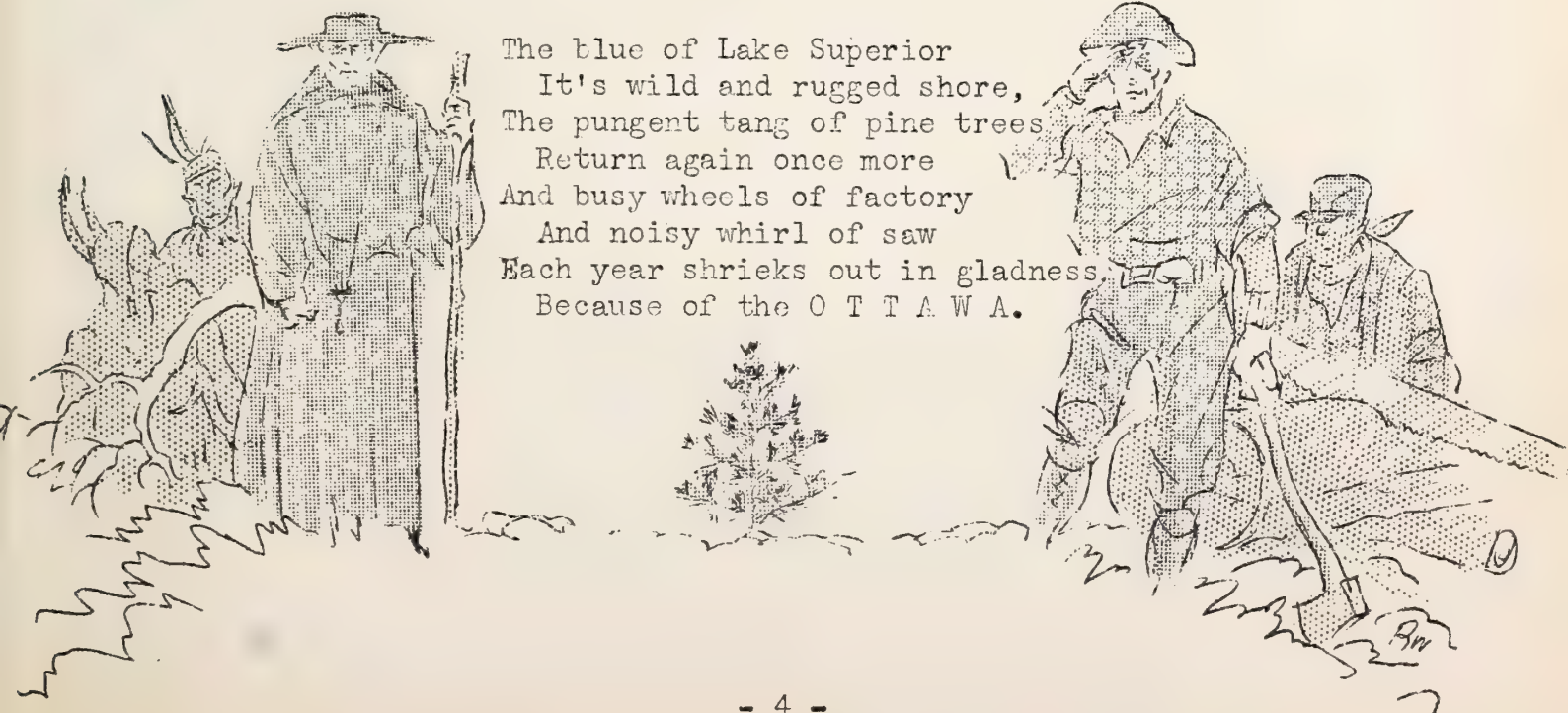
Then came the Federal Government
And said this must not be.
This land was meant for forests,
Let's give it back to trees.
We'll buy these desolate acres
These poor abandoned farms,
We'll stop this raging demon
And save this country's charm.

6.

We'll cut remaining timber
Upon a sustained yield,
We'll plant each idle acre
Of these abandoned fields,
We'll stock the lakes and rivers,
The game we will insure;
We'll start the mills to sawing
And unemployment cure.

7.

The blue of Lake Superior
It's wild and rugged shore,
The pungent tang of pine trees
Return again once more
And busy wheels of factory
And noisy whirl of saw
Each year shrieks out in gladness.
Because of the O T T A W A.



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* A PIONEER SALE IN REGION NINE *

* Cut Foot-Third River Unit - Chippewa *

* By R. W. Sloss - Forest Management *

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The first good-sized timber sale held in the newly created Region Nine was of exceptional interest to the country at large because it was the first sale to be held under the Knutson-Vandenberg Act. The sale area was appraised by Logging Engineer Joe Donery, then of Region Two, in 1929, shortly before the creation of the new Region. However, the bids were not let until September 16, 1930, a trifle over three months after the President had signed the Knutson-Vandenberg Act providing for cooperative deposits for planting and silvicultural improvement work on sale areas.

The sale agreement was approved by the Acting Regional Forester on November 10, 1930.

The sale area consisted of two blocks in the northern portion of the Chippewa National Forest, in Itasca County, Minnesota, known as Block 1, Cut-Foot Unit, and Block 2, Third River Unit. The timber involved in the sale included:

- 58,110,000 board feet saw timber
- 10,700 cords pulpwood
- 22,480 railway ties
- 5,380 telephone poles.

Block 2, Third River Unit, was by far the larger of the two units, containing over 46,000,000 feet B.M. of the saw timber. Aspen formed 75% to 95% of the saw timber contained in the area, and was appraised and sold at \$1.25 per M B.M., including the 25¢ per M B.M. deposited under the K-V Act. The re-appraisal in 1933 left the same rate in effect until November 30, 1936.

The sale was highly recommended as being primarily a salvage sale. The aspen timber, which formed over 75% of the total cut, was mature at an average age of 60 to 65 years. From this point on, it was estimated that it would not increase in value, as the increase in rot would offset the increased growth, and in ten years' time or less would greatly exceed it.

The Cut-Foot Unit portion provided for a minimum cut of two million and a maximum cut of two and one-half million board feet annually, in accordance with the management plan already drawn up for the Cut-Foot working circle.

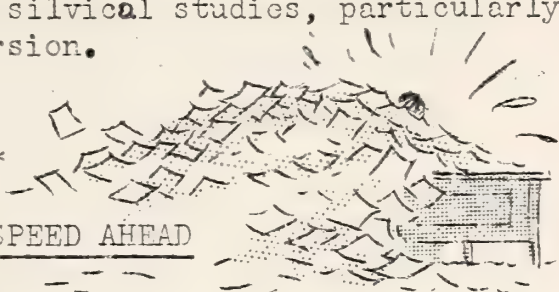
No bids were received for the area as a whole. Goss and Richmond were the successful bidders for the Third River Unit, while the Mesaba Tie and Timber Company were awarded the Cut-Foot Unit.

The Mesaba Tie and Timber Company sale was cancelled in September, 1934, (because of depressed market conditions) while the Goss and Richmond sale, in spite of the depression, is being conducted in a manner satisfactory to the Forest Service.

Practically all of the present mature aspen stands, which formed over half of the old sale area, were the result of a fire which swept through this area approximately 70 to 80 years ago. This caused the even-age stand of aspen, which is now fully mature and in some cases decadent. The mature aspen type is by and large a pure stand, averaging 64 to 80 years of age, and running 24 to 36 logs per thousand, with about a 15 ft. average of clear length. This early sale afforded the Region a number of opportunities for silvical studies, particularly in connection with attempted stand conversion.

* * * * *

ACQUISITION - FULL SPEED AHEAD



Prepared, - for the August 23rd National Forest Reservation Commission, 762,000 acres with a total price value in the neighborhood of \$4,000,000! And less than two weeks to get going! - - A rush news item was sent to the papers following Acting Chief of Lands Bean's rush telegram to the Forest Supervisors informing them of the goal of Region 9 - and Acquisition nights in Room 578 in the Federal Building.

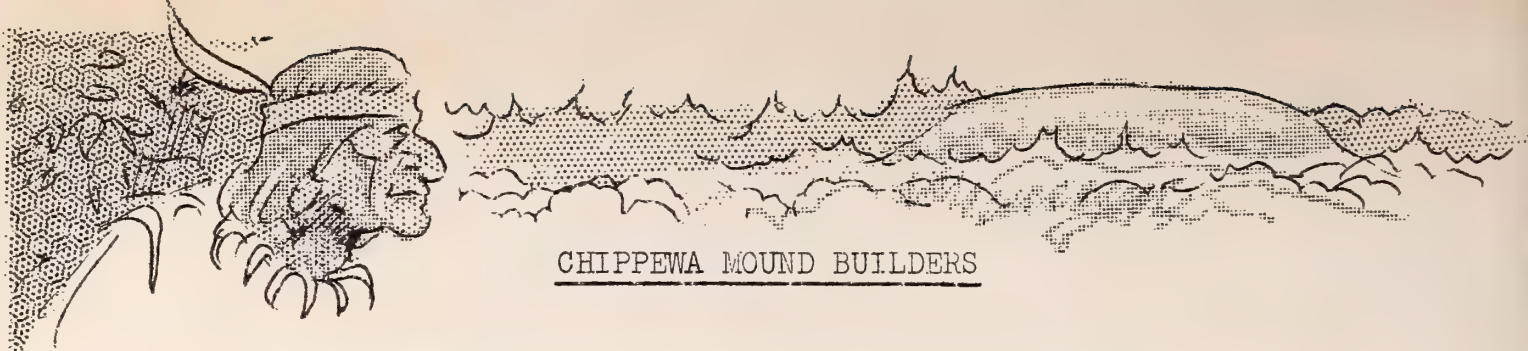
With the options coming in at the rate of one to two hundred thousand a day with the Superior probably smashing all records with 165,000 acres submitted in one day, a hurry call for help in whatever shape or manner was sent out by Gunnar Fenger, Acting Regional Forester. Fiscal Control, Recreation, Fish and Game, Drafting, ECW, Assistant Branch Chiefs, all were organized in day and night shifts, which checked and rechecked, pounded long carriage typewriters, added, compiled, and prepared the three quarter million acres of options for the August 23rd National Forest Reservation Commission's Meeting.

Four o'clock official closing time dropped out of sight, for the day shift worked through to six p.m. - and hour for a bite and a sip and back to work. The first night shift worked to ten p.m., the next to four-thirty a.m., Thursday, Friday and Saturday, with the final cleanup coming at 7:15 Sunday night.

The pace was terrific! Talk about burning midnight oil! Room 578 was littered with papers and whatnot, which made the place look as though a cyclone had been through it.

But the JOB was done!! Cooperation between Departments as never before,--even Mae Techtman on her vacation in Alaska heard the hum of activity and had to return a day early to take part in the finishing touches.

It would be interesting to see Washington's reaction to over 100 pounds of options piling through the "Airmail - Rush" being dumped into its lap. Region Nine played its part - as only Region Nine can do it!



CHIPPEWA MOUND BUILDERS

When Assistant Supervisor Gerald S. Horton of the Indiana was located on the Chippewa as a Ranger, one of his principal hobbies was digging into the ancient history of the Cut Foot Sioux Ranger District, which once was his. Before leaving the Chippewa he sent an interesting detailed account of his researches to the Minnesota Historical Society. The Duluth News Tribune featured this article summarizing Mr. Horton's findings.

George W. Kelley
Duluth News Tribune Staff

Following the last of the five great ice sheets that have covered Northern Minnesota came the mound builders, advancing, it is believed, from the Southwest. Members of the Church of Jesus Christ of Latter Day Saints may conjecture that they were remnants of that tribe of the descendants of Abraham whose wanderings are traced in the Book of Mormon. Crossing the Pacific ocean, they are represented as landing on the west coast of Mexico, later being driven northward into a section that fits the description of Arizona and New Mexico, and there becoming lost to human knowledge as recorded in the interesting chronicle attributed to the angel Moroni.

Be that as it may, the mound builders, it is certain, were the earliest inhabitants of the Arrowhead region of whom there remains a record. Farthest north of all their many mounds in the Mississippi valley are those in the Chippewa National Forest near Cass Lake. These mounds are described in a treatise on the history of the Cutfoot Sioux district of the forest written by Gerald S. Horton, its former Ranger. All National Forest Rangers are instructed to watch for points of historical interest in their districts and to preserve records of them.

FILES RECORDS IN ST. PAUL

Mr. Horton is the first in Minnesota to complete such a record. A copy of it has been filed at the State Historical Building in St. Paul.

Careful study of the various mounds indicates that some were built by these first inhabitants, others by the Sioux Indians before their expulsion to the west by the better-armed Chippewas. Some were built, apparently, as burial places and memorials, others for ceremonies, and still others as habitations.

Facts about the Sioux mounds and about the bitter contest between the Sioux and Chippewa Indians for the territory were related to Mr. Horton by Bob Mosomo, Bob is the last surviving hereditary chief of the Chippewa nation, and is now 85 years old. Of some of the incidents he recounts he retains personal recollection. Others came to him in traditions handed down from generation to generation.

USED 1,000 YEARS

Most notable of the mounds in the Cutfoot Sioux district is the turtle mound, which marks the Bowstring portage, used, Mr. Horton believes, by the mound builders as well as by all the Indian tribes who succeeded them. This portage, four miles long, crosses the continental divide, which bisects the district, separating the waters of the St. Lawrence system from those that flow into the Gulf of Mexico. Evidences indicate that the portage has been in use more than 1,000 years. It leaves Little Cutfoot Sioux lake near the site of the present ranger station. The station was located there on account of the cleared space that had been used, evidently for generations, as a camping spot.

About a quarter of a mile up the trail toward Inger postoffice and the Bowstring river is the turtle shaped mound. As originally built by the Sioux, the head of the turtle was to the north. Later, about 1750, Bob Mosomo says, the Chippewas obliterated the head to the north and built a new one, which still remains, pointing to the south. Until within the last few years, the mound was carefully cared for each year by Indians of Mosomo's Winnibigoshish tribe of the Chippewa nation. It is 20 feet long and 12 feet wide. Mosomo has expressed the wish that it be made his burial place. "His wish should be fulfilled, by all means," comments Ranger Horton.

FENCE MARKS SPOT

Mosomo and other venerable Chippewas have asserted that to the north of this one are other mounds in the shape of serpents. They have not been discovered by white men, but employees of the Forest Service have been instructed to be on the lookout for them. Ranger Horton caused a fence to be erected around the turtle mound to mark the spot.

No one appears to know, but it seems possible that the mound may have marked the farthest advance or typified the ambition of some Sioux chieftain, and that the still undiscovered serpent mounds to the north may have been the emblematic answer of Ojibwa warriors. For three-quarters of a century the grave of the Sioux chief, Little Turtle marked with stones, has overlooked the Firesteel valley from the loftiest peak of the Wessington hills in Jerauld county, S. D. Perhaps there is a connection.

The name Cutfoot Sioux, Chief Mosomo says, originated in an incident preceding an Indian battle. Chippewa scouts were pursuing a small band of Sioux according to directions received by a medicine man in a dream. He had outlined their course to a lake, and from there had instructed them to proceed only if they found a swan on a rush island near the mouth of what is now called First river, not far from Big Turkey point.

FIND ISLAND

They found the island, which still is to be seen in times of

low water. On it was a swan. The fleeing Sioux had dumped on the island beach the body of one of their number mortally wounded in the flight. When the Ojibways landed to take the scalp, they found the dead Sioux had lost a part of his foot, it was assumed by amputation after freezing. Hence the name of the lake and the ranger district.

Remnants of early day trading posts of the United States Fur and Hudson's Bay Companies and others have been found, and the sites have been marked. The earliest is believed to have been established in 1787. Among its ruins were discovered fragments of pottery and of iron, nails, a number of human skulls, a knife bearing the inscription "France-American," and an old muzzle-loading "blood" gun of the type granted to the Hudson's Bay Co., by Queen Victoria from among British army equipment.

MISSIONS RECALLED

The elder Indians of the local tribes tell of mission schools at various points on the principal lakes, the earliest of which were established in 1832 and 1833. George W. Hinman, Claremont, Calif., visiting Cass Lake, told of his mother having spent a number of years about 1850 as a young woman in a Presbyterian mission on the north shore of Lake Winnibigoshish under a Mr. Wright as Superintendent. The Indians remember a number of others, but their sites have not been found.

The book tells of the building of the Great Northern Railway into Cass Lake from the south and of James J. Hill's blocking of the projected Duluth & Winnipeg line, stretches of the uncompleted grade of which still remain. The Great Northern from Cass Lake to Duluth was built during the Spanish-American war period, which accounts for the names of such stations as Cuba, Santiago, Schley and others.

The Winnibigoshish dam was first erected of wood in 1883 and 1884, and was replaced of concrete in 1900. Machinery and materials were brought to the site on steamboats, it is recounted.

* * * * *

BEAL NURSERY - A BIOLOGICAL CURIOSITY

HURON

A recent tourist booklet states the following concerning Beal Nursery at East Tawas:

"Millions of baby trees are born each year at the Federal tree hatchery, the Beal Nursery at East Tawas."

This description throws considerable doubt upon Harry Turner's job classification. We tremble to think of the terms that might have been used to describe the position of nurseryman if the facile pen of the author of the tourist booklet had undertaken to classify him.

ODE TO THE CCC



Where pine trees once bedecked the earth
In solid green array,
And trout streams flashed their rippled course
And beavers dammed their way,
Where pioneer and lumberman
With cleaving axe and saw
Did havoc wreak; make Nature frown;
And violate her law.

Stand short black ghosts of richer years,--
Those stumps of gallant pine,
They mark the point where men of greed
Have overstepped the line.
The trout streams are no longer full;
Their banks are barren ground,
And growing up around the stumps
Just poplar trees are found.

There live and breathe the men who by
Their potent word and deed
Would match that law of balancing
Which holds supply and need
So finely poised in Nature where
The earth and sky combined
Are partners in a mighty plan,
And work with hands entwined.

A matchless force, the CCC's;
Their creed is ACTION NOW!
Their work is monumental,
And they never tire somehow.
The fire lines, the trees to plant,
The blister rust control,
The trucking trails and trout stream work;
The flag must have its pole.

It's "Smith!" "Cinkowski!", "Jeziak!"
And "Boitos!", "Barrett!" too.
"Come here and help to smooth this grade!"
"Now let the truck go through!"
"That fire was big, and plenty hot;
Made soffocatin' smoke!"
"Loan me a buck for the dance tonight--
Cinkowski--I am broke."

- M. G. O'Neil, Junior Forester -

THE DILEMMA OF OUR ACQUISITION FUNDS

by

S. E. SCHOONOVER

During the early part of February this year, the officialdom of the entire Forest Service radiated great expectations for an enormous Public Works program such as we had not heretofore dreamed of as a result of the President's message to Congress asking for a huge unemployment appropriation to lift unfortunates from the dole. Region 9 at that time had quite a large Acquisition program mapped out and we wanted to accomplish as much examination work as we could before April 1 and be ready for whatever responsibilities may be imposed upon us under the new Public Works bill.

The early part of April, the Regional Foresters held a meeting in Washington and there were still great hopes of a very large Public Works Program in which Acquisition was to play an important part in this Region. With these assurances, the Region put forth every effort to accomplish the maximum results in our Acquisition work, especially in connection with the examination of proposed areas. On April 1 approximately 850 Acquisition employees were on the rolls.

However, in the complex organization and new policies adopted by the Planning Board handling the Public Works fund, the Forest Service program was unfortunately delayed from day to day. Our program was finally approved on June 19 and from then on, we have been frantically endeavoring to untangle our financial difficulties in connection with Acquisition. Although the Public Works bill was effective April 1, it was not signed until April 8, and since our program was not actually approved until June 19, we seem to be most unfortunate in having one technicality after another block our efforts to make payment of the large obligations which had already been incurred in connection with our Acquisition program. Never in my experience of over 22 years in the Forest Service have I seen anything like it in the Fiscal Control Office. Up to June 19, we had incurred a little over \$300,000.00 in Acquisition obligations, and the Forester finally succeeded in getting us a special allotment of \$215,200.00. These vouchers were scheduled to the Treasury Department in Washington for payment. At the close of the year we scraped the bottom of every barrel in which any sort of our S&E money had been stored, and frantically searched out applicable Acquisition vouchers for payment from this appropriation. Every possible avenue of solution was explored, both here and by the Washington Office, but we still faced a deficit of something like \$73,000.00 in obligations incurred from April 1 to June 18, inclusive, and these accounts of necessity had to be put on the shelf until some possible solution could be found.

In the meantime, we confidently expected that funds would be promptly made available for payment of obligations incurred from June 19 on. Here again our officials in Washington seemed to be stymied at every turn in the road. Finally, on July 23 we were informed that these Acquisition accounts from June 19 on would be paid by a Treasury Disbursing Office being set up at Madison. We immediately contacted that office and found that they were just getting organized and it would be some little while before they would be in a position to actually make disbursement of these funds. Several conferences were had with the Treasury officials but here again we seemed to sink deeper into the quicksand, and we soon discovered that the new ERA program was bound round with a much wider and brighter red tape than any program we had ever heard of before. A detailed system of encumbrances was outlined and sufficient symbols of one kind or another outlined which makes an ERA voucher appear much like the breast of a seasoned Japanese soldier bedecked with a thousand and one military jewels. We soon found that these new Treasury officials were very cooperative but they intended to transact business far differently from that which the Forest Service has been accustomed for the past thirty years. Each "i" must be dotted with the proper amount of ink, and each "t" crossed with exactly the proper length of stroke, and each symbol must be duplicated in exactly the proper space on each document and exactly the number of times stipulated, and the paper clips on each document must be attached in precisely the proper manner befitting the importance of an ERA voucher presented to an office that is determined to really make history for the Treasury Department of the United States of America.

At last the good news was flashed to us that there was money on deposit. We already had \$43,000.00 in payrolls in that office awaiting some kind of action, but to our very great surprise and chagrin, two of the 47 vouchers we had sent over had been changed in the total amount, had been initialed by the auditor in the Fiscal Control office, and the vouchers had been properly certified by the Budget Officer, but the disbursing clerk of the Treasury Department discovered that the changes in the total amounts of the vouchers, although less than that which had originally been indicated on the voucher, had not been initialed by the certifying officer. We were promptly telephoned that it would be necessary for the certifying officer to make a special trip from Milwaukee to Madison for the express purpose of initialing these two payrolls before any action could be taken in drawing the checks on any of the forty-seven payrolls on hand. On Monday, August 5, an auditor from my office and I made a trip to Madison and went over each voucher in detail with the auditor in charge over there, and stayed until late that evening in making all the corrections necessary in connection with symbol numbers, etc., and we felt quite confident when we left Madison that check writing would certainly begin on August 6. However, at 3:30 on August 6, the disbursing clerk made the telephone call regarding these two individual vouchers in a total of 47 vouchers amounting to \$43,000.00 then on hand which, of course, just had to be initialed by the certifying officer from Milwaukee. On Wednesday morning, bright and early, August 7, the certifying officer made a flying trip to Madison and frantically

placed his initials beside the changed amounts, and he was given assurance that the checks would certainly be gotten out immediately if not sooner. August 8 passed and no checks, and noon August 9 came and went without any showing up. We hazarded a telegram asking when the checks would arrive, and were immediately informed that they had been sent by registered mail on the evening of August 8, addressed to the certifying officer in Milwaukee. At 2:30 P.M. we finally located two packages of checks in the post office awaiting the call of the certifying officer. Never before were checks so appreciated as these, and I presume all offices in our field organization experienced the same thrill, for we were given to understand all payrolls which we had submitted had been paid.

We still had \$73,000.00 back accounts from April 1 to June 18 which were accumulating dust in our files. Imagine our heart failure at receiving telegraphic news from Washington late last night, August 8, that the disbursing officer at Madison had been requested to pay Acquisition vouchers covering expenditures from April 8 to June 18. We want the field to know that we are leaving no stone unturned to get these vouchers in proper shape for immediate payment. An extra force has been added in Fiscal Control office to rewrite all of these vouchers and put them in proper apple pie order, bound with all the best quality of red tape procurable, and we sincerely trust that by the early part of next week, checks covering these accounts will be traveling to the four corners of this Region. Needless to say, all payrolls are being put in shape and given priority.

I wonder sometimes if the field fully realizes what we are up against in the Regional Office and what efforts we constantly put forth to help them. Well, anyhow, even though it is a lot of hard work and an endless amount of apparently useless detail, and at times filled with nerve-racking experiences, it is all a part of the game and we are mighty glad to play it. Our hearts have grieved for many of our Forest Service employees who had considerable sums due them for salaries and wages, but through these unpreventable delays forced them to obtain subsistence through relief agencies. We sincerely trust that this situation will never again occur in the history of this Region.

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X X X X X X X X X X X X X X X X X X X X X X X X X X X	
X	X
X	Said the tree to the brook X
X	"I'll fall on you," X
X	Said the brook to the tree X
X	"I'll be damned if you do." X
X	X
X	The Claw X
X	Clipped from Happy Days X
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FORESTERS AND MARKETS

Chalmer M. Williams, Jr. Forester
Winona Ranger District, Clark P. U., Missouri.

Among the problems of forestry that of markets would stand second only to silviculture if it were possible to separate and classify them. In the past it has received far too little consideration from the forester, but in the future it is going to demand attention. If this attention is not given and is not properly managed the forester is going to find himself in the same predicament as the farmer and will be cutting down every third tree to lower production. The forester needs to promote the legitimate uses of wood and push them forward on all fronts.

The Clark National Forest is located in a territory that for the past fifty years has been furnishing great quantities of high grade timber products to a rich adjacent territory. For a time both market and supply seemed unlimited. The demand has diminished to some extent but for the higher grades it now exceeds the supply to be had from this section. The present need is to keep in touch with the territory formerly supplied, anticipate their needs so that the supply will be ready, and to promote the use of smaller materials and of lower grades.

The production of timber products is still one of the leading industries of this section, but the industry and the people dependent on it have suffered almost in direct proportion to the amount and quality of the marketable timber. The sawmills are for the most part constructed in a haphazard manner and with make-shift machinery. They have an advantage in the cost of log transportation as the most of them are located in the woods, but what they save in logging costs they waste in production. Their saws usually cut a heavy kerf, the lumber is cut heavy and sometimes miscut. The edging and trimming is poorly done. Logs are cut for their particular limited market and not into material they are best adapted to produce. Lack of capital often limits what operators can produce, the amount and the markets that they can reach.

These mills operate only intermittently and their employees lose a great deal of time besides being poorly paid, (mostly 15¢ per hour) as a result, their living conditions, where wholly dependent upon the mill, are comparable with that of the cotton share-cropper. These people for the most part, know timber and how to work it, and the betterment of their condition is one of the problems of the region.

On good roads logs are now being trucked twenty miles for \$3.00 per M. With a road system such as the unit and the State will have, up-to-date efficient plants should be centrally located. The building of such plants, which will be able to produce a variety of produce, should be encouraged and given all possible assistance. The supply of timber that can be furnished will in all cases be

considered: at present it would necessarily be plants that could use small materials. In most cases the production of finished products uses the smaller sizes.

Centrally located plants offer better living conditions for the employees, more regular work, more and better products of a greater variety, which will build up the community and increase the use and value of forest products.

At present a large per cent of the raw material is stolen from land owned by non-residents and in spite of this there is little advantage gained by the cutter and also little benefit to the community since values are quite low and outside companies, such as tie companies, take the large share of the profits.

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NOTE: Intensive forest management requires a market for the products. Intensive forestry is practicable in Europe because everything cut has an active market demand, even for thinnings and small branches.

Our forests will best serve the public when the forester has built up a real market for his products and when the supply of material in the woods will sustain well built centralized plants which will efficiently utilize everything but the "Squeal of the Saw". Williams has recognized a fundamental of intensive management and it is to be hoped that the foresters in charge can ultimately work out stabilized industries and efficient utilization.

H. B. W.

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* F or bigger and better timber stands, *
* O n all our National Forest Lands *
* R egion Nine will lead them all, *
* E arly and late we must hit the ball, *
* S o come on, fellas, lots of noise, *
* T inker wants to be proud of his boys. *
*
* S econd to none is the goal we've set, *
* E arly and late we must toil and sweat *
* R oosevelt says he'll give us more dough, *
* V ery soon, if results we'll show *
* I f every one does his level best, *
* C ongress and God will do the rest. *
* E W TINKER *
*
* Mary McCarthy, *
* Forest Management. *
*
* * * * *

ESTABLISHMENT OF THE 1911 PLANTATIONS

W. B. Piper - Junior Forester - Huron

The first plantations south of the Au Sable River on the Huron Forest, were planted in the Buck Creek area during the spring of 1911.

During April large amounts of Norway pine and Jack pine seed were sown broadcast by hand and in spots with corn planters. The seed was collected and extracted in Michigan and Minnesota. The areas and seed were treated in various ways such as disking the land and treating the seed with red lead and tar. A large per cent of the seed both treated and untreated, germinated during the spring rains but the dry weather in the early summer killed practically all of the seedlings.

The Forest Service purchased several thousand white pine seedlings from the State College at East Lansing. The Detroit and Mackinac Railway Company presented a few Scotch, Austrian and Western yellow pine, which were growing in their abandoned nursery at Tawas Beach.

It was realized the white pine trees were not suited to the area on which they were being planted and the other species were not native to this locality. Every effort was made to secure some Norway pine trees. Finally about a thousand large Norway pine transplants were purchased from the State College and set out after the others.

Local help was used consisting mostly of men and a team from Wilber Township. They did the planting with spades, using the square hole method to a large extent. As the planting progressed, however, the idea of planting the smaller white pine seedlings in slits was developed, using the spades to make the slits. No plowing was done previous to the planting so the spades did not last long. The tough sod broke the rounding back of the spade after a short time. It was not until several years had elapsed that plowing was started and the planting bar invented.

The large Norway pine transplants were all planted in square holes using spades to make the holes. The lumps of sod from the holes were broken up and the loosened dirt placed back in the holes and carefully packed.

Two fires interrupted the planting during the season of 1911. One occurred when the white pine was being planted. This nearly burned up the planters camp in the valley just below the head of Buck Creek and almost swept over the plantation. Part of the crew with the team made a rush for the camp, loaded the supplies on the wagon, and on the run hauled them up the hill. The fire was very hot and burned the fresh slash out of the creek bottom where lumbering had been going on the winter before. The rest of the crew were successful in fighting the fire off the plantation.

The second fire interrupted the planting of the Norway pine transplants. That work was, however, completed in the evening after the fire was put under control.

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FOREST SERVICE COOPERATION
with the
U. S. BUREAU OF LIGHTHOUSES

W. B. Piper - Junior Forester - Huron

In 1913 plans were made for the Forest Service to cooperate with the U. S. Bureau of Lighthouses for the management of their land adjoining the lighthouses along the Great Lakes, with a special view of raising white cedar for spar buoys. The Supervisor of the Michigan Forest now the Huron, was assigned to look over these lands.

Among the areas examined in 1913 were Charity Island in Saginaw Bay about twenty miles south of East Tawas, Presque Isle, near Alpena, Bois Blanc near the Straits of Mackinac, some areas on the Snow Islands, also Manitou Island off Keweenaw Point in Lake Superior, and areas on the Apostle Islands near Bayfield, Wisconsin.

Norway pine was planted on the Charity Island, Presque Isle, and Tawas Point Reservations. No plantations of white cedar were made since this species was reproducing well on the areas adapted for it. The best area of white cedar examined was on Bois Blanc Island.

A timber sale was made on Charity Island where Norway pine was the chief species cut. An attempt was made by the loggers to raft these logs to Bay City, but a storm in Saginaw Bay broke up the raft and as a consequence, most of the logs were lost. The Island was later sold by the Government, only a small area on the north end being retained for the lighthouse and dwelling.

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COMMENTS AND OPINIONS FROM THE FIELD

C. L. Richards, Camp Superintendent on the Ottawa, writes that he is in favor of twenty rated men for use under the Technical agency of the CCC Camps.

R. E. Hedland, Technician Foreman, F-47 on the Ottawa, sends in an article entitled "Hazard Reduction - What Priority?". In addition to cleaning up or reducing the fire hazard on the area, he believes that some of the natural reproduction will have a better chance to survive if the area is cleaned up.

H. M. Bradford, of Coldspring, F-9 camp on the Superior, reports great activity in the number of work projects. The Coldspring Cabin, situated five miles east of camp on the Ely-Buyck Trail, is now one of the showplaces of this part of the country. The camp is going in strongly for recreational developments.

Lee K. Moore, of F-9 camp on the Superior, reports the suppression of the first lightning fire in the camp area. It seems that blueberry pickers are reaping a rich harvest of berries this year. An estimated production of 1500 bushels of blueberries has been made. He queries, "Has anyone found a good remedy for Inspectors on the 30th and 31st of the month? If so, we should like a copy of your prescription".

C. W. Hutchinson, Junior Forester, Camp F-11 Huron, announces the arrival of his camp. The Camp Superintendent is George E. Galer.

The Northern Light, Camp F-6, news is reported by E. C. Rippie. Their principal project is the Overby Branch of Road #628, which is better than four miles in length. Many changes have taken place in this camp during the past thirty days.

Camp Superintendent M. N. Stickney writes of a new forest enemy (Anomola Oblivia) on the Manistee Purchase Unit. It is a rare beetle which has been found in only two parts of the United States to date. They infest Jack Pine principally, but also attack White and Norway Pine.

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AGRICULTURE IN THE OZARKS

Norbert L. Noecker, Foreman, Gardner F-3

The small farms on the ridges of the Ozarks offer some extraordinary sights to people accustomed to modern agricultural practices. The land, submarginal for cultivation, does not allow for much investment in machinery. Consequently farm equipment is passed on from father to son as family heirlooms. The cradle, the double shovel cultivator, the one horse walking plow, the one horse cornplanter, the home made hoe, the improvised harrows made from logs or brush, all relics of past generations, make up a huge museum which is still in use.

Occasionally one may find productive bottom land which is not being used to the best advantage largely because of lack of equipment and power. Such areas offer possibilities for rural rehabilitation. By retiring much of the ridge land from cultivation and by reestablishing the timber and grazing industries the government will have made a very worthwhile step in improving the condition of both people and land.

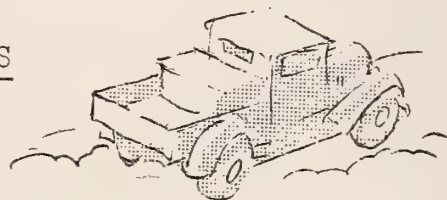
evolution in our accounting system. A representative of the General Accounting Office remarked that in his opinion we had one of the most complete and best accounting systems anywhere in the Government service at the present time. Probably before the end of this year, all Regions of the Forest Service will be similarly equipped. Any time our field employees visit Milwaukee, we extend a cordial invitation to visit the Fiscal Control office and inspect this very fine new system and new bookkeeping machine.

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BACK-TRACKING ON P. R. TRAILS

By Margaret March-Mount



Lot's wife turned to salt when she looked back, and Paul counseled to forget those things which were behind. But Mrs. Lot probably didn't have such an alluring background as your scrivener had in "Little Egypt" in Southern Illinois, where Supervisor Knutson and staff are restoring a lost Eden, and Ranger Fischer and other Californians and Rocky Mountaineers are finding Paul's counsel difficult to observe.

Reporting early in May at Supervisor Paul Kelleter's spacious quarters in St. Louis reminded me (by contrast) of the cut-over beginnings of Region Nine at Munising (south shore of Lake Superior), and our official setup in an antiquated apartment (air cooled!), with a fireplace for atmosphere, and a longhorn typewriter atop a drafting table for equipment. The corps of alert official boys and girls at the Missouri headquarters seemed altogether symbolic of the economic changes since 1929 that have made forestry a top affair; backward-looking now lends a perspective to go forward. Headed for the Council Meeting of the Federated Women's Clubs of Missouri, I found them proud of their forestry map, and ready to propose or dispose, according to the exigencies of the hour. I found also, that the St. Louis Juniors have taken the forestry units as their special projects.

In those Federated clubs that are going into closer partnership with the Federal foresters, I got by every little while as a Junior, but a reverse telephone call to the nearest Illinois Ranger to please come over to Cape Girardeau and help me out of the Missouri into the Illinois Ozarks clearly classified me as an old-timer, unknown to the new-timers, and requiring identification in advance of official transportation. Once arrived on the Illini, however, Messrs. Burke, Mills, Ruby and others, took me for a Saturday p.m. pick-up ride into wild life haunts-to-be and through scenic recreational sites of grandeur along the Mississippi Bluffs of my own, my native State. They proved to me their expressed belief that "women count", and gave me a more sanguine outlook to carry to the Annual State meeting of the Illinois Federation of Women's Clubs the next week.

Further commemorating "the good the past hath had", Ranger Bill Bates, seeing me safely to the Shawnee, "pointed with pride" to the building of a new ranger station on the site of the Lincoln-Douglas debate. Ranger Eaton demonstrated the Shawnee-in-the-making, with special reference to the Memorial Plantation of the Illinois Federation of Women's Clubs, where he built a fence (or fences) around the surviving Colorado spruce(s), and photographed a jack pine that had grown to a height of 20 inches the first year. Listening to this report on their "pet project" at the Chicago convention, the Federation reiterated their stand for a thousand-acre memorial. (And now that Forest Manager Wales has raised his offer to 1,000 trees to the acre, I've got to back-track with the slogan, "Four pines for a penny," instead of merely three, under which 13 cooperative plantations are now under way.) M. D. (Dr.) Sweitzer (Recreation--my favorite branch of work) took me up into high places, showed me proposed skytrails, landscaped fire towers, and all the dignity and design of forest plans for playgrounds and work reservoirs. Truly this is a creative opportunity along our southern borders, and folks down there feel they are getting a real deal.

Though wearing a different sort of uniform, the women of the Forest staffs are playing major roles. Mrs. Kelleter's voice welcomed me out of the Wisconsin snowbanks into the snowball gardens of Missouri, and Mesdames Knutson and Eaton, with entree to Cultural and other clubs, are alive to the publicity potentialities of the Press, the Pen, and the Petticoat.

* * * * *

A NEW PHASE OF PUBLIC RELATIONS

Chas. P. Clements - Estimator

Fremont Ranger District, Clark National Forest - Missouri.

Bring your family troubles to Paul Kihlmire, Technical Foreman and budding young Ranger on the Winona Ranger District, Clark National Forest, Missouri. His reputation as a public welfare advisor was established during a meeting last winter with the Chamber of Commerce at Fremont, where he was endeavoring to explain some of the goals and problems of the Rehabilitation Program. At the end of his lecture - which we believe was a good one - he was besieged with questions, one upon another and simultaneously. "What's going to be done about grazing range for hogs, if a feller has just five acres of land and about two hundred hogs to run on the range?" "What about some of these old boys who have twelve or fourteen kids in the family?" "Well", advised our Paul studiously, "He will have to give up that idea and go to farming."

And when the noise subsided it became evident that both questions were well answered.

MISSOURI TAKES A DAY OFF

R. L.-Clark

On Sunday, July 14, some 150 employees of the U. S. Forest Service in Missouri answered the call of Neptune and repaired with all their aquatic paraphernalia to one of the many picturesque recreational areas now available to the public. The main attraction of this particular spot six miles off Highway 66 south of Rolla is a swimming pool. The occasion was an all-day picnic sponsored by Paul D. Kelleter and Galen Pike, Forest Supervisors, and their able assistants, who, by their courteous hospitality and genuine friendliness rendered the day most enjoyable. The charming and accomplished wives of these men displayed extraordinary talent in the culinary arts, and the exquisite, tempting picnic dainties which they spread on a long table and served in cafeteria fashion not only satisfied the appetites of the ravenous swimmers, but even the wandering bare-foot boys of Toonerville, who straggled into the party at the strategic moment, were not overlooked by our generous and adorable host.

Around the swimming pool could be seen Venus, Daphne, Minerva, Apollo, Diana, Hygeia and all the Nymphs and Niads of Neptune's train. There were also a few Tarzans among other famous characters of mythical lore cruising around in the cool of the evening. Stirring platform dives and low dives were featured by the King Fish in competition with winsome "half backs" and glorious "full backs" who were no mean swimmers. A baseball game between the Acquisition and Service Sections was disposed of with speed and dispatch in the afternoon. It was a "hot" game--so hot in fact that the bleachers were vacant, as the "spectators" were all back at the camp enjoying another swim. Up to date we have been unable to obtain any record of the score. Other attractions consisted of breath-taking broad jumps and low hurdles as the crowd scurried over rocks and hollows to a sunny hillside to oblige a mysterious camera man.

Mitchael Gnaegy, the handsome coxswain in rowboat No. 1, whose master craft known as "The Invisible" was steered with marvelous adroitness and skill through the treacherous Springfield Narrows and around the perilous Rolla Rapids, came through the ordeal with hardly a scratch to remind him of this most daring adventure. Gliding serenely into the safety zone, his noble crew with matchless dexterity and amazing ability landed securely with all on board just as the magic word "watermelon" rang out over the peaceful waters of St. Louis Bay. This was a signal for the 10-yard dash, which was won by Conrad Gneagy.

In the single sculls championship race, Mr. Knudson was the victor. His sunny locks were curled for the occasion by Neptune himself, and he plied the oars to his scull or shell known as "Hollow Comfort" with a peculiar individuality of style which aroused the admiration and envy of all his colleagues. He presented a pleasing picture on the water with the big red tire when he deigned to "sit on the tilting rim of it and rode away and wasn't scared a bit".

The laurel crown for perfect auto control and gallantry belongs to Mr. Bower, for he undoubtedly delivered his cargo of four frivolous females to their very doors with never a sign of friction, and they all agreed that his clever mastery of the road and kindly manner, enhanced by the gorgeous sunset that seemed to be planned and timed just for our benefit, marked the ideal ending of a perfect day.

The sun was moving at a rapid rate down the horizon in the west and "Knight" drew near; a brilliant "Star" came out and beamed upon the quiet "Land"; crickets chirped and "Frogges" among the shady "Bowers" joined in the melody. It was high time to depart; tiny rabbits were seeking their comfy "Burrows". In the gathering dusk of evening the graceful curves of the pure white "Stearns" were delightfully silhouetted against the twinkling lights now coming into view across the water. The soil being firm in most of the parking area, few "Stallings" occurred. Only one, in fact, was noted by the kibitzer, and that was so slight it disturbed only one "Hazel" nut. "Clark" Unit, represented by a perfect living statue of Apollo, the God of Eternal Youth, stood in majestic reverie near by, his beautiful countenance aglow with the consciousness of triumphant power, and from his lips were heard the words "I own" -- but "Shaw", why tell everything? From a short distance beyond a "Merry Bell" was peeling (we think it was a lemon) in the waning twilight, and you can "Jess" guess the rest.

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FORESTRY FLOAT WINS PRIZE

W. F. Tribe, Chief Foreman F-2
Huron

First prize in the 4th of July parade held in East Tawas, Michigan, was awarded to Silver Creek Camp, Huron National Forest.

The Tawas Ranger district entered two floats and the large fire truck. The big red fire truck carried a Fordson tractor and plow besides other fire equipment, and was decorated with fire prevention signs. Of the two floats entered, one from Glennie Camp showed a miniature CCC camp complete with barracks, mess hall, headquarters buildings and garages. A large placard listed the various camp activities conducted by the Forest Service. The Silver Creek float was made up on one of the ton and a half trucks. The entire truck was completely covered with boughs of cedar and pine. The rack floor was carpeted with moss in which various sizes of Norway pine had been placed to represent different ages of plantations. In the background, three CCC boys were posed to represent planting, protection and improvement. The figure Planting carried a planting bar and box; Protection a back pack pump and short handled shovel, and Improvement carried a double bitted axe.

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Albert S. Pulling of the Chequamegon resigned from the Forest Service to join the Biological Survey at Winona, Minnesota.



THE RAIN OF MUD

George H. Kelker - Manistee

You perhaps have heard of the Winter of the Blue Snow, the same winter that Paul Bunyan found the Blue Ox. Yes? Then did you hear about the winter without snow, when all the land turned into a desert, and stunted trees stood upon the landscape like Christmas trees jabbed into a sandbox? No?

Well, sir, it was nearly half a century after Paul Bunyan and his Blue Ox had logged over the Lake States, leaving behind them sections of bleak land scattered irregularly over the region. You know that Paul Bunyan used to hitch the mighty Babe to a section of land, hauled it with its load of trees into the mill yard, and after cutting the trees off would tow it back to its old place. Well, sir, he didn't always get those sections exactly in place. That is why today you find section lines frequently running at any angle and any distance, which often is in contradiction to the maps. Since the edges of these replaced sections didn't fit tight, water leaked away faster than before, lakes and rivers dried up, and the whole country fast turned into a desert.

Then came the winter of no snow. That was back in the decade of the wondering thirties; the same time that young men from the farms and the cities moved into camps that were a paradise compared to the one that Ole was superintending. Now, these lads, the Seesee boys, worked in the woods, putting young trees back in the ground, piling brush on bad fire areas, building roads - for Paul Bunyan used lateral moraines and hog backs on which to skid his sections - and making hiding places in the stream for the sleepy trout.

In one camp of these bronzed men, called camp Section 37, because it was built on a section left behind from logging days - they noticed that the air was getting full of drifting particles of dust and fine sand. Towards the spring season the air became so full of dust that it made a mortar-like wall in their nostrils, sand plugs filled their ears, sand-stone coatings formed on their tongues - in fact, the coating became so heavy, and being of fine material, the lads frequently whetted their knives on its surface. The sand got into the grub, and those with soft teeth had them worn down to the roots from grinding rock in their daily meals.

The dust even drifted into all crannies of the bunk houses. Even the fabric of the bunks was so tightly packed with the dust that a visiting geologist believed that he saw the first step in the petrification of organic products. In fact, the mattresses assimilated fine sand to the extent that on sub-zero nights the men safely built fires under their bunks and slept soundly on warm slabs of adulterated earth.

By the middle of May, the air became full of dust. Even at

noon the sun was completely hidden by the pall of dust-fog. As the air became heavier laden, the chances for snow or rain steadily grew dimmer. Finally, it grew so dark that the men used to go to bed immediately after the evening meal and sleep soundly until morning. Some foremen thought that the men were reverting to the animal stage - that is, entering the pre-hibernating stage.

At noon, all the Seesee men would lie in their bunks, the better to digest their heavy meal before going back to work. One dark day they all fell asleep, thinking it was evening. They were very hard to awaken when the work call blew, which was quite unusual as they had always responded with alacrity. Going to work, their sluggish actions portended some dire phenomenon of nature. Their talk was marked by bickerings and petty strife - so unusual in a camp of Seesee men. Just as they arrived at their place of work, one man removed a wad of mud which had hit him on the neck. He was loud and furious in his denunciation of the culprit - not at all for hitting him, but for wasting the precious water in his canteen in making mud balls. While the men were piling brush, more and larger mud balls hit the ground all around them, but no one could be detected in the making or throwing of them.

About this time queer sounds were heard; some said it came from above, others that it issued from the ground. But all agreed that it seemed like muffled thunder. Now and then, a flash of light appeared, causing them uneasiness. Some thought that ghosts were coming back to haunt them, for they had heard of the shades of Paul Bunyan. The rumbling sounds continued and flashes of eerie light continued to suddenly appear from nowhere. Then, two men were hit by mud balls and each claimed the other was to blame. Then a hail-like storm of mud fell, and all men made for the shelter of the trees. Glancing up into the sky, they espied an avalanche of mud sliding and tumbling down toward them. Their leaders, undisnayed, made them get out from under the trees and get under their brush piles which were built tepee form. As the mud ran off these piles, the men beneath kept raising them while the mud increased in depth on the ground.

When the sky first started to pelt mud, a few scattered patches of light appeared on the ground. Then more and larger spots appeared as more mud fell. With the increasing of the light the thunder changed from a distant mumbling and jumbling of sounds to a more natural reverberant roar. The mud kept slipping and sliding out of the sky, and in falling on trees, broke the limbs off as clean as severed by axes of the Seesee lads. After the falling mud came rain, which lasted for several hours. It diluted the mud sufficiently for it to run over the landscape and fill up all crevices left between the section blocks.

That is why no evidence of the storm can be found today, save the dubious tales of the Seesee lads who vouch for it. Even the gaunt, delimbed trees are mistaken for fire snags. In fact, the flood of mud helped wash away section 37. Now one has to go elsewhere to find evidence of Paul Bunyan's big scale logging.

REGION 9 - ECW CAMPS - FIFTH PERIOD

S U M M A R Y

State	National Forest		State		Total	
	Reg.	Exp.	Reg.	Exp.	Reg.	Exp.
Illinois	9	3	12	1	1	13
Indiana	-	5	5	13	11	24
Iowa	1	-	1	-	3	4
Michigan - Huron Manistee Ottawa Upper Mich.	4 3 6 11	2 5 10 10	6 13 16 21	3		
Totals	29	27	56	22	14	36
Minnesota - Chippewa Superior	11 13	9 12	20 25	19	9	28
Totals	24	21	45	19	30	73
Missour - Clark Gardner	5 5	7 5	12 10	4	1	5
Totals	10	12	22	4	13	27
Ohio	-	9	9	13	9	22
Wisconsin - Chequamegon Nicolet	12 10	11 12	23 22	18	7	25
Totals	22	23	45	18	30	70
GRAND TOTALS	95	100	195	89	41	130

Regular	184	National Forest	195	- 60%
Expanded	141	State	130	- 40%
	325		325	- 100%

WORKING BASIS AND SALESMANSHIP AT LUZERNE CAMP F-4

E. B. Forseth - J.F. - Huron

Work is a measurement of accomplishment, and here in Luzerne Camp this accomplishment is measured by the varied efforts that each enrollee expends.

Whenever the Forest Service announces the program of a new project, it is usually the same men that come to the front to "get on", and they usually do because they deserve the preference. These same men are getting a lot out of the opportunities offered. As these same men are transferred from one project to another when they leave here, they will be better men in the industrial world because they have something to sell in the form of service.

Salesmanship in camp is encouraged because the Forest Service wants to train men to better them for industry. As an example, a man will be swinging a sledge on a creek, then run a compass, then a truck, repair telephone lines, drive a tractor or grader, then work in the kitchen, etc., all within a month's time.

This teaches the man to use his own head and not be dependent on a leader; in addition it gives him something to sell when his enrollment period is over.

During the past three weeks Luzerne Camp has "broken in" sixteen tractor drivers who change around four models of machines, and already some of the men are negotiating for jobs on roads, etc., that will pay them 80¢ per hour - the jobs to start within a month.

When these same men came to the CCC they did not have a working basis, but after their term of enlistment here they have a definite service to sell at a higher price than before their enrollment.

Talk about speed. The first twelve months with Forests in Missouri were the driest on record. During the second twelve months they travel on the highways with canoes. Yes sir! Saw it with my own eyes and took a picture for proof.

C. J. Bower

At the end of a trying time --- "Daddy, did you say you got a handful of paychecks this morning?" This was what Richard asked one evening recently.

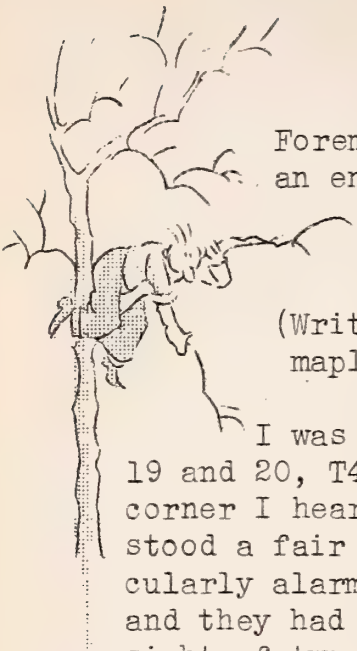
C. J. Bower, Clark

FORESTER TREED BY BEAR

Foreman Mario Bernardini tells the following story of an encounter with a bear near Polack Lake Camp F-48.

May 28, 1935

(Written while sitting 20 feet off ground in a 3 inch maple tree)



I was following picket line north from section corner 17, 18, 19 and 20, T42N, R20W to Haymeadow Creek. Just a few chains from corner I heard a noise about 150 feet to west. I looked, and there stood a fair sized black bear. Was rather thrilled, but not particularly alarmed, as I'd met wild bears at close range before this and they had ambled off about their business. But suddenly I caught sight of two cubs frolicking up and down the trunk of a big birch near the mother bear. Then I did become rather perturbed. I thought if I stood quietly the big bear might go away, but not this bear. She thought her cubs were in danger and started circling around. Now sometime in the dark past I'd heard or read that the thing to do when pursued by a bear is to climb a tree big enough to support you, but too small for the bear to climb. As this was my first attempt at eluding a mamma bear on the war path, I wasn't sure of the exact specifications of such a tree - but this was a case of do something, so I put my faith in a three inch maple about thirty feet high. By now the bear was around where the brush was less dense, so we were in full view of each other - just about a hundred feet apart. She let out a few loud snorts and started my way slowly, but quite determined. I waited no longer! Up my chosen tree I scrambled, and if I didn't pray, it was because I was too scared. I was well up in the tree when the bear arrived at the bottom. A few preliminary antics and then she started up my tree. You may have one guess, who was the most frightened boy in the Upper Peninsula at that moment? Fortunately for me, my choice of tree was a lucky one, as the bear got up about five feet off the ground and fell back again, aided by my shaking and kicking. Immediately she made another attempt, with the same result as before. My nerves were pretty well shaken by this time. But now she quit and paced around under me still snorting and puffing loudly. I hardly dared move as each action excited her more. Finally I got tired and had to shift positions to avoid a cramped leg. This aroused her again and she rushed my tree once more, making my heart skip several more beats. Again she failed and fell back to earth. In about fifteen minutes the bear started slowly away in the direction of her cubs, and I started to breathe a little easier. This was at ten o'clock.

I now had a chance to notice that the mosquitoes and black flies were unbelievably thick around me. Luckily I had a head net to keep most of the mosquitoes off my face, or waiting up in that tree would have been unbearable (no pun intended). It was bad enough even with a net over my head.

11:00 o'clock.

I hadn't heard or seen the bear for some time and I decided to sneak down off the tree. I did so very cautiously. As soon as I hit the ground where I could see the ground around me, I noticed Mrs. Bear about one hundred feet away, looking uneasily my way. I lost no time in climbing back to my refuge.

11:50 o'clock.

Again I thought I'd try coming down for a look. Again I saw mamma bear, and as I scrambled back up the tree she began a loud snorting which made me fear a renewed attack on my tree, but she settled down again. This begins to look like a long seige, and the flies aren't getting any better.

12:25 o'clock.

I heard a scratching noise near by and saw the two cubs coming down off a big hemlock about a hundred and fifty feet away, and then saw the mother bear near there too. This is the first I've seen of the cubs since the first meeting. I'm in hopes the mother has decided it's O.K. to call her youngsters and move on.

Later (back in camp).

About 1 o'clock I started down off the tree to have another look around. This time I couldn't see anything of the bear, but I was still pretty cautious for fear she might be within hearing, and so made quite a bit of noise to attract her attention while I was still near the tree in case she should happen to be near by. But nothing happened and I started back to the road, with many a backward glance, keeping an eye on suitable trees to climb until I got far enough away from the spot. I heaved a huge sigh of relief when I got to the main road and the car.

VOLUNTEER COOPERATOR

Bonser & Kiff Sts.
Sciotoville, Ohio
June 24, 1935

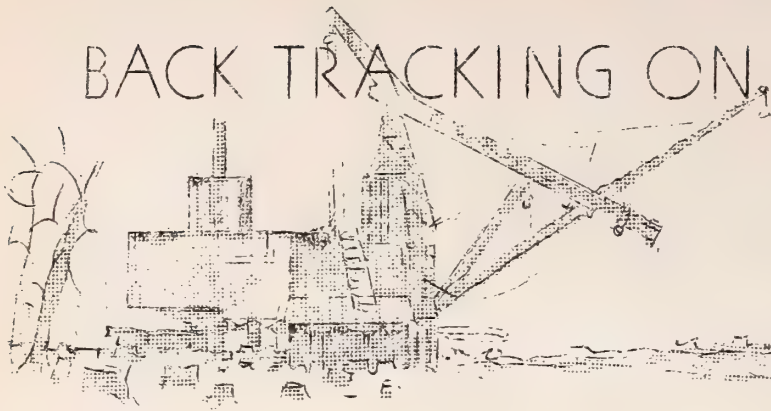
Mr. Roy Olson, U. S. Forest Ranger,
Portsmouth, Ohio.

Dear Sir:

As I am interested in the preservation of our Forests and Streams, I wish to tender my aid, little that it may be.

I am a Boy Scout; a member of Troop 10. In our troop there are several boys who also would be very eager to preserve nature. One of our laws is Helpful, as you may know. We would be very eager to post land with fire laws, "No Hunting" signs and patrol

BACK TRACKING ON THE MARQUETTE



by
SETH JACKSON
Supervising Technician
MURCON

During the hot dry summer of 1919, when I had attained the ripe old age of 15, I was gullible enough to accept a job as swamper in a lumber camp north of Rexford in Section 36, T. 47 N., R. 5 W., operated by the Richardson, Avery Company of Raco.

That part of the country was then covered with a magnificent stand of beech and hemlock, which I viewed for the first time from the "Swede holes" I laboriously dug while doing my small part to build a railroad into the so-called trackless wilderness.

The logging method then in vogue was to cut out and get out, a timber famine not yet having been felt, nor for that matter, even considered. The logs were usually taken to the skidways along the railroad by "big wheels", and were loaded onto the waiting flats by horse crosshauls. Later in the season a steam railroad jammer appeared which snaked the logs out of what was left of the woods by steel cables, loading them directly onto the flatcars.

The day began at 7 A.M. and we returned for supper at 6 P.M. This seemed like a long hard day until we got our first taste of fire fighting. In those days, apparently, fires were not considered serious until they began to scorch buildings. During my first fire, an all night affair after the customary 10 hours' swamping, I was put on the roofs of the smoking buildings of a neighboring camp, where my function in life was to cool them off with pails of water handed to me by the bucket brigade. Fully a third of our time was spent in fire fighting that summer. Fires were controlled by hand trenching or by backfiring if the fire had crowned or was travelling fast. One fire lasting several days, nearly destroyed the then bustling town of Raco, and it was put out only after it had consumed some shanties on the outskirts. Our food while on fires consisted mainly of pickled pig's feet which the lumberjacks inhaled in huge quantities. One fire near camp destroyed several carloads of logs as well as a wooden trestle which we repaired by making a safer dirt fill. A great many dead deer and other animals and birds were found along the railroad after this fire. Occasionally we would ride to Raco on a train of logs to get a hot bath and taste of other luxuries of life.

In those days the town was booming. The manager's bungalow, company store and hotel, and the sawmill were all in very good condition. Near the mill lived several families supported by money earned in peeling hemlock bark from the logs as they came from the woods.

In the late winter of 1924 after several months in a camp in Northern Ontario, I again returned to Camp 7, where I was taken on as a snow shoveller. The country had changed considerably. From the bunkhouse door I could now see Lake Superior, which view had formerly been blocked with a solid forest of beech trees. In the intervening years I found that the tide was even then beginning to turn. The Cadillac Lumber Company had bought out the Richardson holdings and was conducting the operation more conservatively. Seed trees were being left in the stand and quantities of material such as tops, large branches, and crooked or defective boles were being sent to the chemical plant at the Sault to be made into alcohol and other distillation plant products. A scattering of the original lumberjacks was still in the camp, which was in the last stages of decreptitude and very dirty.

I heard that the newer lumber camps in this vicinity were models of cleanliness and even had showerbaths installed. The first week-end in camp we had a two foot snowfall, after which the choreboy swept out the bunkhouse for the first time, I believe, since 1919, and then only to enable us to get through the snowdrifts which had seeped in through the many cracks and crevices in the old building. Shortly after, I left camp for good. A very few years later this territory was included within the boundaries of the Marquette National Forest. I imagine that the railroads we built at the expense of many backaches have since been ripped up and converted into truck trails. I hope that the area I helped to log over has since been able to restock itself so as to completely efface all of the despoilation to which I was a party not so very many years ago.

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NORTH DAKOTA CHANGES

Effective July 1, 1935.

Mr. Raymond W. McLees was appointed to the position of State Forester of North Dakota.

Mr. F. E. Cobb, former State Forester, is now State Director of the Plains Shelterbelt Project for North Dakota.

Address of Mr. McLees and Mr. Cobb is Bottineau, North Dakota.

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From "sombodys" diary:

"Tried to rent larger room up here for storeroom so we could use part of it for drafting room. They want \$10.00 per acre - - "

land against violators of these laws.

May we help you some way? If so, would you please contact me by a letter or phone? My telephone number is Sciotoville 49X.

Yours very truly,

W. C. ARTHURS.

WAIHALLA CAMP F-23

Cooperation.

H. Adair - Manistee

We moved into this location in mid-November of 1934. The only available telephone service was a stub-line connection on a private, locally-owned and partly maintained system. This particular system embraces some twelve hundred miles of metallic and grounded line. Our first efforts at "outside" conversation were pitiful. Not even in an "Engineering, Field Forestry" vocabulary could we find terms of sufficient vitriolic caliber to chase the local farmer-ladies away from such intrusions as "But Mary Ann, it is too cold to butcher in the south pasture today" just as we received a tower call.

In desperation we called upon the local manager of the exchange first, following it with personal calls to each and every one of the forty-odd farmer-ladies whose eagerness to hear what those 3-C's were doing caused them to accept invitations to come to camp to see instead of trying to listen in every time the phone rang.

Results:

1. Fewer fires than ever in this locality.
2. A two mile stub line built from the exchange to camp at no cost to us, to guarantee a clear line out to main line board.
3. A helper in every local farmstead. At 9:30 A.M., May 29th, before the towerman spotted the smoke, one neighbor called to report what seemed to be a rapidly spreading fire in a neighboring house. Our boys saved the outbuildings, which surely would have burned without their help. On June 26, a truck carrying pulp bolts broke down the bridge on the main line road east from camp some eight miles out. Central notified us within 15 minutes to advise detouring our trucks and equipment.

Education:

For two months or so this spring we had in camp, with us, a

man who is a leader in school and P.T.A. affairs while at home. Openly curious as to contemplated forest program, he changed from a frankly dubious state of mind, at first, to a thoroughly enthusiastic stage before leaving.

Results:

1. A wood-lot started in the school yard of his home town in which they expect to have samples of all native trees.
2. A nature course added to the local high school curriculum this coming year.

THE SLATE QUARRY CAMP GROUND

Calvin Stewart, Blister Rust Checker - Ottawa

The Slate Quarry Campground lies six (6) miles south of Kenton, Michigan, and 33 miles north of Iron River, Michigan, on Forest Highway #16. It is almost centrally located within the boundary of the Ottawa and is easily accessible from all surrounding towns, and is but 14 miles from U. S. #2 Highway.

This project is now under construction, and when finished, promises to be one of the finest picnic and camping grounds in the region.

Its natural beauty is unsurpassed with three beautiful waterfalls within 200 yards of the camp center. Trails and bridges are to be constructed along the creek providing a scenic tramp. It is planned to make this walk as wild as is possible.

The camp ground proper is just below the site of the abandoned Slate Quarry. This quarry, abandoned for twenty-five years, abounds in mystery. Rumors still float around the countryside about the odd and eerie happenings at the main shaft.

On top of the quarry a lookout platform is to be built, and a splendid view of the surrounding country can be obtained. A winding trail, already constructed, leads from the picnic ground to the platform.

We invite you all to enjoy the beauty and romance of Slate Quarry.

Forest Service Girls' Club of the Regional Office sold nearly 500 tickets for a swell "shindig" which took place on September 17. Styles, skits and cards were on the program - - And Oh, those models!

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 * A LAKE WITH AN INTERESTING HISTORY *
 * Mott D. Cannon - Junior Forester *
 * Huron *
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Within the Huron Forest there is a small nameless lake, the history of which is so clearly shown, that a record of it may be of value. It is circular, steep-sided and without inlet or outlet. A "Kettle hole" of the type which so commonly dot the moraines and adjacent outwash plains in the Lake States.

Various theories have been advanced to account for these crater-like lakes. The one most widely accepted is that blocks of ice isolated from the main portion of the glacier as it melted back, were surrounded or even covered by glacial debris. The almost perfectly circular outline of the smaller lakes, with their steep, evenly sloping sides, has always caused comment as to how an irregularly shaped chunk of ice could make so uniform a crater. However, provided the block of ice is small, its shape would seem to make little difference. If a small block of wood embedded in fine dry sand is withdrawn, the resulting pit will be carried regardless of the shape of the block. A larger block will leave a pit which approximates the block in outline. This exactly parallels what is found when one examines numbers of lakes in morainic belts. The smaller are all circular, while the outline of the larger ones is almost always irregular.

The formation of the pit which our lake now occupies, occurred at the time when the great Labrador ice sheet was slowly receding. Between that time, and the present, there is a complete blank. Roughly, one hundred and fifty years ago this lake was dry, - at least dry enough to support a good stand of white pine - stumps on the bottom and stubs on the present shore give evidence of this. Fifty years ago the lumberman came, cutting all there was to cut, but he reached these trees too late - they were already dead, flooded out. The dry, steep-sided bowl had become a lake, probably as the result of a rise in the water table. Why did the rise of the water table coincide with the removal of the forest cover? Many who read the Bulletin are doubtless more competent to explain this than I, but these suggestions come to mind. Trees transpire a vast amount of water and it is conceivable that the amount would be significantly greater than what would evaporate from the less protected ground. In the sandy soil of this portion of Michigan penetration is no problem; thus it is possible that the destruction of the humus mat which accompanied lumbering allowed more water to reach the water table proper. Whatever the cause, the water rose to about eight feet above the present level connecting our lake with two other kettles to the northeast. The water level then dropped four feet, disconnecting the lakes and remained at that point until five years ago, since which time it has receded another four feet.

About fifteen years ago when carp were planted in this pond,

there was a semi-floating bog where the old connection had been. As it is unusual for this type of bog to form on the windward side of a lake, I judge that something in the chemical nature of the water coming from the other kettles was particularly favorable. This bog has now floated across the lake and is aground on the southwest side. The carp may have played a part in loosening the bog by undermining it. A slight rise in the water level, probably accompanied by a northeast storm, was the immediate factor which loosened it, for the stranded bog slightly overlaps the grassy, upper beach.

Most of the lakes in the Huron Forest show signs of recession. Is the drying up of the small lakes due to water demands by an increased number of trees and the storage capacity of the humus layer built up through fire protection? Possibly the fluctuations of these lakes are tied up with the cyclic changes postulated for the Great Lakes. Again, much of the recent recession may be charged to abnormally low precipitation. Although I can only make suggestions as to the cause, I am certain that these fluctuations of lake level (and of the water table to which these lakes probably serve as an index) are worthy of consideration in any broad program of forest management. The advisability of making plantings on old lake beds, and the future of recreational developments should be considered in the light of possible changes in the height of the water table. Changes in lake level have especially great effects on fish and waterfowl. On the shores of several of these partially dry lakes windrows of dead fish have been washed up, victims of suffocation under the ice.

The hope is to eventually determine the causes which lie behind the history of these lakes. Once these causes are known, even if we cannot control the course of events, we can at least predict them and plan accordingly.

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Anticipated consumption of lumber during the second quarter of 1935 is 4,412,000,000 feet, which with estimated first quarter consumption of 3,956,000,000 feet indicates a prospective total for the year of between 17 and 18 billion feet.

The national consumption of lumber, including exports for the past six years, based on Forest Survey of lumber used is as follows:

1929.....	35,807,000,000 ft.	B.M.
1930.....	26,498,000,000	"
1931.....	19,070,000,000	"
1932.....	13,105,000,000	"
1933.....	15,148,000,000	"
1934.....	15,467,000,000	"
1935.....	8,368,000,000	" for first 6 mo.

FIRST TROUT IN GLENNIE CAMP REARING PONDS

By James Rosebush

The trout rearing ponds built by the Glennie CCC Camp have received their first contingent of fry from the State Bureau of Fisheries Hatchery located at Northville, Michigan, on July 6, 1935.

This shipment, which consisted of 76,000 brook trout, formally opened the first trout rearing ponds constructed by the CCC under the supervision of the United States Forest Service in Michigan.

When the trucks arrived with the cans of fish, the process of tempering the water and planting the young trout was ably handled by a crew of CCC under the supervision of Mr. E. R. Widmyer, of the Northville Hatchery. The trout were divided between four raceways, approximately 19,000 in each one, and they seemed to take to their new homes with keen delight. Some 280 fish were lost during the whole process of shipping and planting and nearly all of these were due to having been sloshed out of the cans enroute. Very few fish died after having been placed in the ponds.

Two competent CCCs are camped at the site of the pond and food is shipped twice a week, which these men prepare and feed to the trout according to instructions.

A meat house has been constructed over a cold spring and metal reservoirs set down into the water in which the meat and perishable fish foods are placed. This has been found to be satisfactory and keeps the food fresh for a period as long as four days. The two attendants, both old-time lumberjacks, have a keen interest in the welfare of the "leetle fellers", as they term them, and are up before the Sun, working in the interest of the fish. They found a twelve inch "German Brown Trout" in one of the raceways a few days after the small fish were planted and caught him in the net. To quote Old Ed's own words, "I cut the so and so open, and there were five of the leetle fellers in his belly."

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"Managing Michigan's deer herds today is a vastly different problem than that of 40 years ago. When one realizes that the number of deer hunters has increased nearly 300 per cent in 14 years with little increase in hunting territory, this problem of keeping the hunting public satisfied begins to assume serious proportions. The old methods simply of cutting bag limits and seasons would not suffice. Game of any type in Michigan can no longer be 'manhandled'. It must be 'managed' and intelligently."

By I. H. Bartlett

Taken from the "Michigan Conservationist"

SELECTION OF NATIVE SHRUBS FOR LANDSCAPING

R. N. Graham - Jr. Forester, Huron.

Although native shrubs do not ordinarily receive a great deal of attention from the forester, the possibilities of their use in naturalistic landscape planting demand study to determine the best varieties to use in a given locality. As is usually the case, the number of species available is so great on the Huron that the problem becomes one of selection.

On the basis of landscape effect, ease of transplanting, and adaptability to varying soils and exposures, a list of twenty species has been compiled. This list will be used in making planting plans. During the summer an effort will be made to locate a good place to secure each kind, accessible by truck. In this way much time will be saved when planting time comes. The list is as follows:

Acer spicatum	Mountain Maple
Amelanchier canadensis	Juneberry
Ceanothus americanus	Jersey Tea
Crataegus var.	Hawthorn
Cornus paniculata	Grey Dogwood
Cornus stolonifera	Red Osier Dogwood
Hamamelis virginiana	Witch Hazel
Juniperus communisdepressa	Spreading Juniper
Lonicera caerulea	Bush Honeysuckle
Malus coronarius	Wild Sweet Crab
Potentilla fruticosa	Shrubby Cinquefoil
Rosa var.	Wild Rose
Rhus typhina	Staghorn Sumac
Spiraea alba	Meadow Spirea
Sambucus racemosa	Elderberry (Red-berried)
Shepherdia canadensis	Shepherdia
Symphoricarpos racemosus	Snowberry
Taxus canadensis	Canada Yew
Viburnum americanum	Highbush Cranberry
Viburnum lentago	Nannyberry

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A NOTE FROM THE CHEQUAMEGON

During June 5.17 inches of rain fell at Park Falls. During July up to 8:00 A.M. on July 5, the Chequamegon received 5.02 inches. Some of these rains approached cloudburst and did considerable damage to the Butternut nursery.

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FOREST SERVICE GAME SURVEY IN WAPPAPELLO UNIT

H. L. Blakey, Game Technician - Missouri.

Weather conditions favored the game census drive held on the Wappapello Unit, Sunday, April 14th, with a clear, bright day. CCC Enrollees from Camp 740 at Sam A. Baker State Park, Camp F-11 at Ellsinore, Camp F-8 at Winona, and residents from surrounding communities gathered at Camp F-5, Greenville, Missouri, for the drive. Pre-arranged checking and driving lines were spotted with men at measured intervals in a short time and the drive line moved away at 10 o'clock. The drive lasted about three hours.

About 300 men participated in the drive, covering twelve to fourteen square miles with an average walk of less than four miles. Many boys in the drive had an opportunity to observe some game species for the first time.

The game specialists conducting the drive were well pleased with the results obtained in all phases of the project as an experiment. Covering a large area with a large group of disciplined men is a new method of taking a game census in Missouri and serves to obtain accurate information on many items at one time which has been impossible in earlier records.

Quail led the list of reports with 165 observed; rabbits reported 85. Twenty deer were counted and carefully checked but no turkey were found in the area. The reports included some squirrel, 'possum, and one fox. The predators were represented by one bobcat, eighty-eight dogs, and fourteen housecats. Grazing reports showed over a thousand head of cattle, sheep, goats, and hogs combined.

The drive was made primarily for a check on large game. However, the data on small game will prove valuable when correlated with two drives made earlier in the previous week over small areas and on an intensive basis. The exact count of game of any one species on this area can not be used as an index to the entire area within the Unit, but represents findings on an area which has particular characteristics of topography, water conditions, natural barriers, and game range.

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THE NATIONAL FOREST

H. J. Tyndall, Watersmeet Camp - Ottawa

Despite the voluminous amount of discussion that has taken place in recent months regarding the Manistee National Forest, it is undoubtedly true that many persons have only a vague conception of what the forest is all about. Like some mystic spirit, the forest seems to be everywhere in Western Michigan, and yet nowhere.

The question might possibly be propounded as a riddle: "What's in Mason, Lake, Manistee, Wexford, Oceana, Newaygo and Muskegon counties, and at the same time isn't?" Answer: "Manistee National Forest."

The explanation, of course, lies in the fact that to a great extent the forest exists as a "purchase unit", its outer boundaries merely denoting the limits within which land may be acquired, providing it is for sale at a mutually satisfactory price. In other words, contrary to the conception held by some individuals, the forest area will of course, never exist as a continuous unit occupying all lands within its specified boundaries.

Villages, private farms and residences of various forms will always be found within the limits of the forest area, and their location inside this purchase unit in no material way affects their customary status.

In short, a National Forest purchase unit is set up in a region where submarginal and non-productive lands exist on a reasonably large scale. The purpose, of course, is to remove this area, or such sections of it as are available, from competition so that over a period of years it can be restored to productive uses by reforestation and other means.

To get a really clear picture of the National Forest idea one must necessarily look ahead 10, 20 or even more years. According to George H. Dern, Secretary of War, and Chairman of the National Forest Reservation Commission, approximately 98 per cent of that area now included in the Manistee National Forest area will need planting.

As is generally known, some 550,000 acres in this West Michigan region are included in the purchase unit which was recently enlarged and approved.

"The enlargement of the forest will have as its purpose an effort to bring back stable and well-ordered conditions to a broad region which once had at its command some of the finest pine and mixed hardwood stands in the Lake States," Mr. Dern told Congressman Albert J. Engel of this district in a recent conference. He further pointed out that the planting of this vast area to stands of white, jack, norway pines and Norway spruce, hemlock, maple and other hardwoods native to the region, can reasonably be expected to restore the lands to good timber production and to bring back industries formerly of local and State-wide importance.

Other and equally significant reasons for the existence of the forest are to be found in the necessity for soil erosion control, watershed protection, recreational development, game management and, as previously mentioned, the retiring of submarginal lands from unprofitable crop production.

(The above editorial was clipped from a Mason County Newspaper, and well explains the existing conditions in many of our new Forest Service Purchase Units.)

FORESTRY EXHIBITS

Albert Van S. Pulling, Technician - Chequamegon.

I have had an opinion for many years that forestry exhibits were rarely forestry exhibits, but were usually restricted to the narrow field of timber productions and utilization, and the admittedly broader fire protection. Even the latter has been, very often, confined to negative prohibition rather than positive instruction.

A number of things occur to me that are interesting exhibit material in my own speciality. A complete set of tanned skins is one of them. They should include the bear, fox, wolf, coyote, bob cat, Canadian lynx, beaver (both plucked and unplucked), otter (both plucked and unplucked), muskrat (natural and dyed), mink, skunk, badger, weasel (white and brown), mole, rabbit (cottontail and snowshoe in both color phases), and deer (tanned with hair on and buckskin).

This particular part of the exhibit could be called "Forest Products That Come Indirectly From Trees."

Interesting individual signs could accompany each skin. The beaver skin might have a sign "A Cord of Poplar, Worth Fifty Cents on the Stump, Grew This Skin." The foxes and cats could have a sign, "Raised on Rabbits--That Did Wisconsin National Forest \$200,000 Damage in One Year." (I guessed any figure. It would have to be accurate.)

The mink and otter skins might have a sign, "Some Game Fish Went into These Skins, but Rough Fish Went with Them."

Something of this sort could be devised for every skin. We have especially neglected the rabbits. This is my first effort to get anything on paper relative to artificial rabbit utilization. Verbal suggestions I have made in the past did not get anywhere, because everyone is afraid of tularemia. All hat pulp is made from rabbit fur, I believe. There has been some sale for live rabbits; we have sold some rabbits to fox ranches--at a loss of course--and there ought to be some means of disposing of more fall and winter caught rabbits for human consumption. There can be if it is concentrated on. Indians made very interesting and valuable rabbit products. I have a woven rabbit skin robe on exhibition at the University of Michigan Museum. It was made by the Crees near Fort Albany on James Bay. It is loaned indefinitely, but I could borrow it back for a special rabbit use exhibit.

An exhibit of predatory birds--showing the bird killers and rodent killers--would be equally interesting. We could get all of this stuff right off of this Forest, including the man to mount the birds, and to draw up the signs. It would cost a few dollars to have the skins tanned.

Skins of our now extinct or nearly extinct marten and fisher

should also be on exhibit. Signs "Man's Greed Has Exterminated Them on the Chequamegon. We are Going to Bring Them Back."

A model of a trout stream, before and after improvement, with the water running right through it, and some small trout in the water, would also be an impressive exhibit. It would, of course, have to have a continuous water supply.

This same exhibit could include a branch of aspen preferably P. Grandidentata with a sign, "Ruffed Grouse Prefer These Buds for Ninety Per Cent of Their Winter Food". A branch showing the winter catkins could do the same for the white birch and the sharptails. Our Moquah scarlet oak might be similarly represented with a sign, "Not Much for Timber, But the Acorns Make Food for Sharptail Grouse and Deer That Gives Them a High Nutritive Food Start for the Long Months Ahead." The same holds for beech (when we get some!).

Along with the wild life exhibit, a combination showing dams might be worked out.

Coordination has been what was most lacking in the exhibits I have seen, just as it has been lacking in the profession in general. I mean that, when one sees poplar, he may think "weed tree". Even so he should also think "nurse tree", "soil maker", "grouse and beaver feeder", and various things about excelsior and soda pulp. White cedar should indicate winter deer browse as well as durable timber, and there are numerous other things, possible in an exhibit, to shake the public away from a single track viewpoint.



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COURTESY --- OH YEAH?



Some time ago, while on detached service, Charles Mony, the dynamic, diminutive forester of the Ottawa National dropped in on Camp Superior for the proverbial bite to eat. On eying the table in the foreman's mess he observed that one end of the top was cut away at its edge as if previously broken. Wishing to be polite while in strange quarters, he seated himself at the maimed portion of the table. Enter: "Baldy" - Superior's 300 pound construction foreman (D.B.H. 3.8 ft.) He cast an eery eye at Mony and said: "Little man, arise and shine the other side of the table." With astonished eyes Mony watched Baldy fit his spacious front into the curved, cutaway portion of the table top.

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The Nicolet Forum reports that Dale Sanders' pet dream is a fish for every hook and two wood ducks for every nest. Sanders is the Nicolet Fish & Game Specialist.

PRE-PLANTATION SURVEY

By E. B. Forseth, Jr. Forester, - Huron

Dr. Sam Graham, entomologist at the University of Michigan, has successfully identified the white grubs that feed on tree seedlings by the arrangement and shape of the spines on the posterior ventral segment.

A major part of the pre-planting survey on the Huron National Forest consists of obtaining evidence of the abundance of these white grubs on plantable areas.

In order to obtain this evidence it is necessary to screen the top soil samples, 1' x 1' x 8" through $\frac{1}{4}$ " mesh galvanized wire, over the given areas at definite intervals.

As of June 1 there have been 14,560 acres surveyed and mapped and 1,352 man-days expended.

When these areas are planted and where survival is not satisfactory reference will be made to these areas of failure and conclusions drawn as to the reason.

As an example of 1933 planting, section 20, T. 25 N., R. 2 E., M.M., where 95% of the seedlings died out, it was found that 62 grubs per line of sample screening were present, in 80 sample screenings per mile.

The abundance of grubs here may be the contributing factor for this planting failure.

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- IN MEMORY OF MAJOR STUART -

We have learned from a letter received today that... "Plans have practically been completed for a very impressive entrance portal to be erected at the Stuart Nursery near Pollock, Louisiana, on the Kisatchie National Forest. This is a memorial entrance to our former Chief Forester Robert Young Stuart, for whom the nursery was named, and it is very desirable that this be perpetuated in the form of a bronze plaque or tablet on one of the entrance pillars.

Donations of not over \$.50 each, to cover cost of the bronze plaque are being requested from the appointed personnel of the Forest Service of Region 8 who were employed in the Forest Service during Major Stuart's term as Chief Forester. It is proposed to have the following wording on the bronze tablet:

Stuart Forest Nursery
In Memory of Major Robert Young Stuart
Chief Forester, U. S. Forest Service 1927-1933.

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* PUBLIC RELATIONS *

* By *

* Vincent Greenwood, Jr. Stenographer - Huron *

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Public Relations, as I see it, is nothing more or less than advertising. Lectures are given and exhibits shown with the basic idea of disseminating among the public information regarding the activities of the Forest Service, and making known the accomplishments of the last few years. It is now the policy on the Huron and some of the other Units to keep a card record of the contacts made by each of the technical force, scoring each individually. Great is the interest in acquainting key people of various groups with the work being done in the National Forests.

Never, however, to my knowledge, has any effort been made to really show the clerical personnel about. New clerks are hired and put to work and in many instances they know nothing about the Service upon entering the job, and the only way they can learn anything of field work is by driving about the Forest on Sundays and holidays.

Why doesn't someone initiate a field day on which everyone who can be spared from the office is taken on a tour by one of the Supervisor's staff and shown CCCs in action, planting taking place, in short the practical side of the outfit. In this manner, the office workers would be given at least a general idea of how things run. When questioned by an outsider, it would be possible to give an intelligent reply as to how a tree is planted or of what sort of operation thinning consists.

Private concerns with large forces are not slow in explaining to new members the superiority of their products. As new items are added to stock, demonstrations are given so that even the office boy can cite the outstanding merits of the article.

The non-technical members of the Service constitute a good share of the entire personnel, and, working in town, have more opportunities for becoming acquainted with the townspeople. Aren't the potentialities of this large group being overlooked? Perhaps casual observations to a forest stranger by a clerk wouldn't have the effect a detailed description by a technical man would, but many an otherwise unprofitable Sunday picnic could be turned into a more or less educational tour.

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A good idea! - Some of the Forests have already used the field trip idea to put across to the office force this business of forestry. Although it may not be possible to cover all phases of the work,-- just visitin' aroun' with someone who knows his stuff will help a great deal. - Editor.

YIELD OF MAPLE SAP ON THE CHEQUAMEGON

By John K. Brownell, District Ranger - Chequamegon

The initial sale of maple sap for Region 9 was made on the Moquah Unit of the Chequamegon National Forest this spring.

This sale was made in a culled hardwood area that had recently been cut over by jobbers working for the Rust-Owen Lumber Company. There are about 20 to 30 large trees to the acre and the rest of the trees fall in the sapling or reproduction class. Most of the large trees are maple, and they are stag headed and rotten at the butt. Although the area at first glance looks almost worthless, it promises to become a source of income from the sugar makers' standpoint.

We found that the average yield of sap was four gallons per spile, and that there were about 125 spiles per acre. Thus, the estimated return from one acre is about \$3.75 per year. We believe that a price of \$.03 per spile will be a fair rate to charge in future sales of this kind.

As you can see by the above figures the sap flow was rather small. This was due to the cold damp weather this spring, which was not at all desirable for the maple sap industry. We are hoping that in future years the weather will be more favorable and that the industry will prove more satisfactory than it was this past spring.

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OBSERVATIONS BY A STRANGER

It seems that the recognized procedure used by a newcomer in writing an article for the bulletin is either to give his first impressions or to exclaim at the striking difference of procedure and plan between such an embryonic forest and an older one, especially if he is from a well established western forest.

Not having any special gift of originality, and not having been here long enough to intelligently discuss any particular phase of the work, I can only do the same.

The most noticeable difference seems to be one of attitude. There seems to be a much greater incentive to tackle new problems, to find new and better methods of doing things. Whether this is due to being actually able to see a new organization grow under one's feet, or whether it is due to the greater number of younger men in the personnel, I cannot say. I believe each has a direct and important bearing on the results which are more satisfactory than anything produced in an 'older established forest'.

Robert Coombs, Tech. Foreman,
Camp Baldwin, F-42.

A BRIEF HISTORY OF THE SLATE QUARRY

By Calvin Stewart - Ottawa

The abandoned slate quarry lies in Sections 2 and 3 in T. 46 N., R. 36 W., with the main shaft in Section 2. The property was originally owned by James C. Ayres and an unknown homesteader.

Mr. Ayres was given the property by the United States Government for building or assisting in the building of the old Military Road which ran from Lake Superior to Green Bay. M-26 runs along the old Military Road near Bruces Crossing and Watersmeet.

The Quarry was opened in the winter of 1908 and 1909. At that time the demand for slate was high particularly for roofing slate, and the quarry had little or no trouble selling their product. The slate had a fine, even cleavage and brought fancy prices.

The winter of 1909 and 1910 saw a decline in the price and as the hauling was done by sleigh to the Duluth and South Shore railroad, the cost of operations prohibited working and the quarry was closed, never to reopen.

Many rumors have floated around the countryside adjacent to the quarry about the gunfights, murders and other trouble, but as yet none of it has been proven. However, it does serve to provide a setting for an already historic background.

In 1920 the land, which was heavily timbered to hardwood, was purchased from the Ayres estate by the Von Flatten Fox Lumber Company, and in 1930 was purchased by the N.F.R.C., thus completing an interesting and historic cycle.

At present, the Slate Quarry is the site of a picnic and camping ground, work on which has already been started. A description of the project, plans and possibilities, will be written up for the next issue.

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NORTH SHORE EXHIBIT

George W. Morrill, Jr., Technical Foreman

The United States Forest Service has recently exhibited a small scale model of one of its forests in towns near the Huron Forest. The exhibit was shown in Whittenore, Oscoda, Tawas City, and East Tawas from the 9th to the 14th of May.

The Miniature forest had features representing 20 of the 50 main Forest Service projects. Fire fighting, control, and results, fish and game work, road building and maintenance, telephone systems,

O
Michigan-Fire

East Tawas, Michigan
August 3, 1916.

District Forester,

Denver, Colorado.

Dear Sir:-

Reference is made to my telegram of August 2.

Fires have been burning on the Mio District and in the surrounding region for the past ten days. This District is now in a drier condition--if one is to believe the old residents in the vicinity--than at any time during the past few years. No rain has fallen since June 29, and as a result all the grass, kinnikinnik, sweet ferns, and weeds are completely dead and dry as tinder. The Jack pine also show the result of the drought since each of the small trees looks as if it had been hit by a fire. Because of the extreme dry conditions and the constantly shifting winds, it has been impossible to stop the fire, except for small portions of it. The fire has developed several heads, and at present, is burning in the north central and south central portions of the District with some back-fires in an easterly direction. The fire has now burned over three or four thousand acres all together and at present is reported to be under control although it is likely to break out at any point because of the extremely windy conditions. The Service has been particularly handicapped in the fighting of this fire because it has been the policy not to construct any firelines on the Mio District nor have any buildings been constructed here where men can be taken care of or where tools and other supplies kept. In view of the remoteness of the District, it is difficult to secure men and teams, although at the present time, ten teams and between forty or fifty men are working on the fire.....

Very truly yours,

(Signed) HUBER C. HILTON

Forest Supervisor.

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* Prof: What is relative humidity?
* Carruth: Well,-er, it's the sweat from a fire fighter.*
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* * * * *



HELL ON EARTH

WHEN A FOREST BURNS!



SATAN ALONE STANDS GUARD

recreational activities, and timber cultural work were points included.

The exhibit was in the charge of Technical Foreman George W. Morrill, Jr., who lectured on the phases of forestry work represented by the model. A fine reception was given to the exhibit by the 2100 people who were privileged to witness the miniature. Many exclaimed at the fine attention to detail shown by the makers of the exhibit, and the natural appearance of the trees, buildings, streams, roads, and landscape.

* * * * *

August 21, 1911.

Mr. W. B. Piper,
Au Sable, Michigan.

Dear Piper:

I received your letter enclosing the pictures depicting the Au Sable and Oscoda fires. The pictures show vividly how fearful the conflagration must have been and, knowing the town as I do from my last trip, frankly it is a wonder to me that the same disaster did not happen before. The particular photograph showing the ruins of the Loud residence is one of the most impressive to me, since, in my opinion, the real heartthrob of the life of Oscoda and Au Sable was to be found in the Loud family. I have wondered what they intend to do in respect to rebuilding their mill and the re-establishing of the town. It would be a great pity if the fire meant the permanent wiping out of Oscoda and Au Sable. I should be glad to hear from you some time concerning what you think will be done in rebuilding and what you believe the future prospects of the town to be. I received your good long letter, giving the detailed description of the harrowing and heartrending scenes in connection with this fire and I thoroughly appreciate your going into the detail since the reports we had received up to the time of your letter were rather meager. Your loss of your books and personal effects is, I know, a severe one since a great many of the articles a man collects in the course of time have more than an intrinsic value and, of course, it is impossible to replace articles of this character. When you get the time, I should be glad to hear from you.

Very sincerely yours,

F. A. SILCOX.

* * * * *

E. S. Peirce, Chief of Lands for R-9, is on a "detail" to Washington, where he will head up work for the U. S. in the same Branch. Rumors have it the detail will be more or less of a permanent nature. We are sorry to lose Peirce, but what is our loss is the country's gain.

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* CHANGING NAMES *
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* Albert Van S. Pulling, Technician *
* Chequamegon *
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I recently read with much interest the Record of Discussion and Action at Regional Foresters' Meeting, April 10 to 22, 1935.

On pages 24 and 25, the suggestion relative to changing the name of the Forest Service seemed singularly out of line.

I was a graduate for 18 years, before I earned my first dollar with the Forest Service in 1933. I was a temporary E.C.W. man then and now. I have no special sentiment for the organization beyond the loyalty one owes an employer. The suggestion, however, relative to changing the name, does not seem sensible in the light of cold logic.

The name "Forest Service" seems outmoded because foresters have been defining Forestry and several of its ramifications very peculiarly ever since I first entered a forest school in 1911. There were conflicting ideas as to what a "Forest" was, and what "Forestry" was in that small school.

For many years, both verbally and in writing, I have urged the adoption of definitions, that describe what forestry should do, rather than what it has vaguely attempted during the almost quarter century I have been identified with it. The Profession has been slow to respond. The following is my version of the definitions that seem to be controversial:

1. Forestry is the best use of forest land, as expressed in human values.
2. "Land" is used in its broadest sense, and includes contiguous waters, excepting waters of the maritime type.
3. Forest Management is the valuation and economic regulation of all forest uses and products.
4. Timber management, recreational management, and wild life management, are the logical divisions of forest management.
5. Forest Products and Forest Utilization concern the products of the Forest, and are not restricted to the products of trees.

The general viewpoint of the forestry profession has been--to me--inconceivably narrow. Very recently, I note that the Washington Office has changed "Forest Management" to "Timber Management", which is what was meant right along.

The name "Forest Service" is all embrasive now, if the forestry profession will admit that it is no longer hiding behind the trees.

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FOREST PLANTING FACTS

F. J. Fehlberg, Chief Foreman, C. & M.
Huron

The Huron Forest and surrounding country, which at one time played a foremost part in Michigan's production of timber which resulted in the nearly complete destruction of all tree growth, now may look forward to the restoration of these great tracts of timber by the successful planting program now being carried on by this Forest.

The prospect of this Forest being turned back into another timber producing area has aroused a great deal of interest by the public, who are the final critics of any project. The public as they gradually become more and more interested in the complete restoration of our once devastated areas will unhesitatingly say this is one of the greatest projects ever attempted.

For several decades or since the complete destruction of one of the greatest natural resources, the farmers have been waging an unsuccessful fight trying to obtain a livelihood from the soil, the major part of which is now proven to be suitable only for the production of timber. As a result each year many acres are purchased from these unsuccessful farmers and are added to this planting program.

The hunter and fisherman have given their approval for this program and they are no less enthusiastic than the tourist in hoping to see, again, a heavy and complete stand of timber on this Forest.

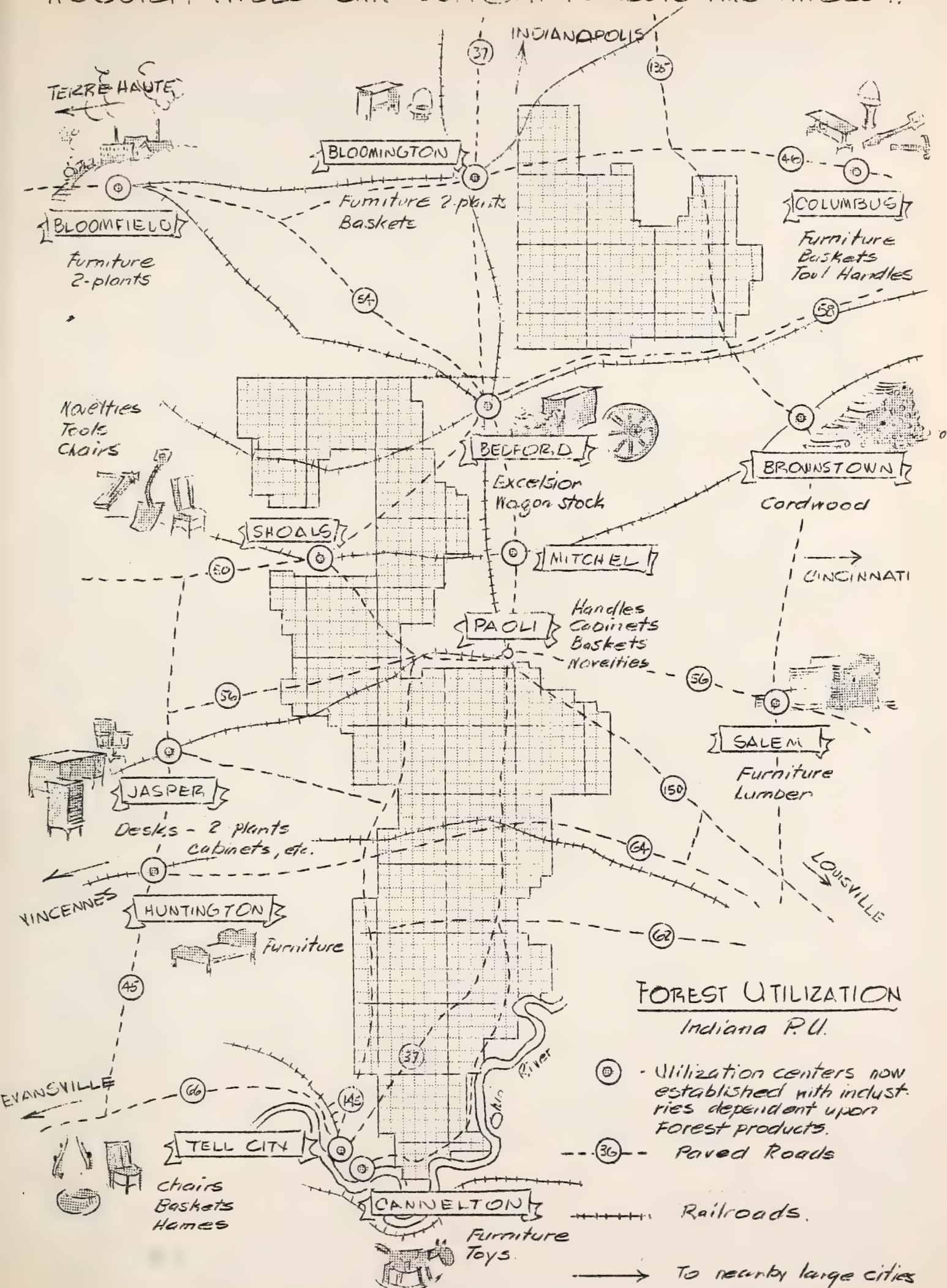
Aside from the value of the timber which can and will be grown on the Forest, and the enthusiasm of the hunter, fisherman and tourist; there is that possibility of increased revenue from recreation. With the increased use of the land for recreation and the establishment of recreational areas, camp ground sites and summer home sites, the revenue that can be derived from these areas should certainly prove that the complete planting of all areas on the Forest must receive the highest consideration.

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Leslie S. Bean, Supervisor of the Ottawa, succeeds Mr. Peirce and has reported to the Regional Office as Acting Chief of Lands-- And things are popping around here!

Mr. F. A. Silcox, our Chief, paid R-9 a visit which will be long remembered by those who heard and saw him on his tour of the Michigan Units and the Wisconsin-Upper Michigan Section of the Society of American Foresters.

HOOSIER HILLS CAN SUPPORT FORESTS AND MILLS !!



HOOSIER HILLS CAN SUPPORT FORESTS AND MILLS!

Gerald S. Horton, Asst. Supervisor - Indiana

The map on the opposite page shows the location of special wood using industries on and surrounding the Indiana Purchase Units. In addition to these practically every railroad point is a cross tie market and practically every town of any size has a lumber market. Posts are marketed locally throughout the area.

There are approximately twenty different wood using plants or markets of one million or over capacity per year and approximately fifty-five of under one million capacity per year on or surrounding the Units.

The Indiana Purchase Units lie in the most productive region of the Central Hardwood belt. The Central Hardwood belt has produced more and better hardwoods than any other region in the United States and Indiana has always been one of the leading states in high-grade hardwood production.

A great variety of valuable hardwood species is produced and used in the different wood using plants and wood markets. White Oak, Black Walnut and Yellow Poplar are probably the most valuable and are used extensively in the manufacture of high-grade furniture, desks and cabinets. Red Oak, Beech, Sycamore, Black and Red Gum and Hard Maple are the favorites for chair manufacturers. Hard Maple and, to some extent, Beech are also used in furniture, desk and cabinet manufacture.

Ash, Oak, Hickory and to some extent Elm dominate the "long" and "short" handle, bat and ball line. They are also used for novelties and toys. Elm is unsurpassed in the manufacture of baskets, hames, hubs and rims. Red Oak is also used for the above to some extent.

Cottonwood, Aspen and Soft Maple are used almost exclusively in excelsior manufacture.

Black Cherry is very valuable for furniture when found in sufficient quantities.

Black Locust is unsurpassed for posts with Red Cedar a close second. Maple, Beech and the Oaks are used extensively for flooring.

Practically any and all of the hardwoods with the exception of Elm, Gum, Butternut, Cottonwood, Aspen and Magnolia are used for crosstie with Red Oak the favorite. All species, with the exception of Cedar and Black Locust, are cut into lumber.

Black Walnut stumps bring fabulous prices for veneer. Hickory poles and saplings are used considerably in the manufacture of

novelty and outdoor furniture.

However, the situation is this - while we have existing markets, very little timber remains for those markets. While 'Hoosier Hills can Produce Forests for Mills', IF THE FORESTS ARE ESTABLISHED, DEVELOPED, IMPROVED AND PROTECTED by practical forestry, without forests, Hoosier Hills will support gullies and rills.



* * * * *

TIMES ARE PICKING UP!

Well, it 'pears as if times were a-picking up. Darned if I don't believe this yere U. S. Forestry idear is going to be all-right. I low at first I wan't right kindly to it. I feared right smart as how Uncle Sam buying up all this yere land would just naturally run all we old timers out of the country. My granddaddy come here all the way from Caroliny and I sure aim ter stay here.

Howsomer after I heerd that U. S. Forestry man speak over there at English, I plumb achanged my mind tother way. Darned if he didn't explain hit all right, tolerably well too. They say they had the same kind of meetings in all the other Co. seats too. Well, you know I believe that feller was honest. He lowed as how nobody would have to sell as didn't want to. And he vowed Uncle Sam would pay us just as near as possible what the land was worth. I low I wouldn't sell them any of my land if I thought they was going "to do any horse trading."

Bill Sprinkle said a bunch of those Govnment land surveyors was a-coming to look our land over thisaway purty soon. I seed one of the maps they was a-making. Of all the goldarned marks they had on it. Hit sure looked like my barn-yard does after the pigs and chickens been tracking around in it. I said what in tarnation does all them there marks mean. Well he says those there marks stands for all the different kind of dirt and trees around the country. This is what we base our appraisal on, says he. Well maybe hit's all right, but it sure looks plumb peculiar to me. I'll bet when he gets that all reckoned hit won't make my land bring any more. I know darn well it didn't show where I got 60 bu. of corn 2 years ago. I know Bill Sprinkle's land taint worthen moren mine and if they offer him more per acre than they do me I'm agoing to afind out why. So long! See you agin.

THE HOOSIER PHILOSOPHER, G.S.H.



H. Basil Wales continues his interesting extracts from Mr. George F. Cornwall's articles. Comments on these articles drawing possible parallels to local conditions are welcome.

"In his final speech to his 'boys', Dr. Heske made these significant remarks concerning the objectives of the tour:

"I hope that you have seen that private forestry is a real and genuine thing in Germany and Czechoslovakia, and that such a scheme of forest operation is quite feasible where a system of taxation prevails which tends to encourage rather than discourage such endeavors.

"Another important thing I wanted you to see is the social aspect of forestry on the areas you have visited. In every instance you have seen the large staff of permanent workers attached to each estate, for whose welfare the owner feels a distinct responsibility....

"Still another thing I would impress upon you men from America, and which is the underlying principle in European forestry, that duty comes before vested right. The living generation is entitled to the fruits of the forest, but it is our duty to leave the capital intact for those who follow."

(Note: This is the underlying thought in our present master plan development. Editor.)

"If an American visitor is asked what is the most striking thing about a German or Czechoslovakian forest, he must inevitably reply: 'The remarkable system of permanent roads that give convenient and quick access to every part of the holdings.' The primary roads on the larger estates are carefully planned and constructed of materials equal to average highway specifications. Motor cars may be driven through almost any part of the forest and the secondary roads are likewise excellent. These roads are invaluable from a fire protection standpoint and also serve as a ready means of removing the timber during the logging season."

(Note: Roads for protection and utilization are an important part of planning. Editor.)

"For the most part, logging in Germany and Czechoslovakia is confined chiefly to the winter months, although felling may start as early as April or May and the logs left on the ground until the snow falls. It should be quite feasible to log at almost any season if the owner would consent to motor transport. The basic theory of winter logging is that much less damage is likely to occur to young growth when there is a protective mantle of snow on the ground. Since all logs are peeled before being sold, cutting is usually conducted when

the sap is running. Bark is carefully coiled and sold to the tanneries. Peeling is also required by law, as a protection against bark beetles. Pulpwood is also barked and if it lays in pile for several months, it is given a second peeling before going to the paper or pulp mill."

(Note: The opportunity for income from thinnings is dependent on markets and the size of the stand thinned. Near-merchantable values should not be destroyed by too heavy a thinning. We are handicapped somewhat through lack of a market for the smaller trees and also by our late start on intensive management, but a good sense of values and energetic salesmanship will overcome this to some extent. Editor.)

"Thinnings form an important part of the forest production in Europe. The smallest trees are used for fencing material and the larger ones for various types of mine props and poles. Much of the scaffolding used in Europe is fashioned from round poles. These are usually tied together, and capable of re-use many times on other building jobs. Firewood is also derived from thinnings as well as much of the pulpwood supply. In fact, when the forest gets to the stage where thinnings are possible, actual revenue from it starts. Thus it will be seen that the actual income from a particular compartment may extend over a long period of years, through successive thinnings.

"Of late years, there has been a tendency for German housewives to turn from wood to coal for their fuel supply. This has caused no little apprehension on the part of the Utilization Committee of the German Forestry Association, which has been sponsoring the development of a new type of wood stove, which burns the gas given off by the wood, in contrast to the ordinary direct system of combustion. It is said that these stoves will burn for twenty-four hours with one charge of fuel."...

"It is somewhat difficult at first for the American visitor to get the German viewpoint on game keeping. In many cases the owners complain of the game as being almost a nuisance and frightfully destructive to young trees. Natural regeneration is almost out of the question with large herds of deer and wild boar running through the forests. To meet this situation the owner must do one of several things: Limit the game to a reasonable number; completely fence-in cut-over areas carrying new growing stock; or create separate fenced-in inclosures for the deer and boar. All of this costs a considerable amount of money, and aside from the luxury of having one's own shooting preserves, it would appear to the American that it might be well to dispense with most of the game. But not so. The German regards the forest life as an integral part of the picture and must be preserved at any reasonable cost and trouble.

"There are a good many misconceptions of German forestry in the minds of Americans who generally have the idea that a tree is planted as soon as one is cut. This is far from the truth. The general system in vogue on most estates is clear-cutting and replanting from home-grown nursery stock, or restocking by fencing-in the cut-over area and letting

the seed drift in from the nearby mature stand. In fact, natural regeneration is coming into vogue in Germany and finds favor with many of the leading forest officials.

"Natural regeneration through selective cutting is also favored by a good many foresters. By careful selection of trees to be removed--always taking out the poorer ones first--new growth in many places comes along promptly. There are, of course, a good many dry areas in the Scots pine region where natural regeneration is too slow and field planting must be done..."

"In the woodlots owned by the peasants, the collection of litter and needles, as well as branch wood, has greatly impoverished the soil and the poor, half-starved Scots pine stands seen in many regions are the result of this practice. In some sections, even the stumps are dug out of the ground for fuel. This practice is now regarded as extremely bad forestry and state officials are doing what they can to discourage it."

(Note: Are we not also impoverishing the soil by the requirement of complete slash disposal in coniferous stands? The conifers are usually on the lightest soils and large areas have been degraded by repeated burning. Should not silviculture be given equal consideration with protection? Editor.)

FINIS

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THE CABERFAE TOWER

John T. Croll, Camp Sup't. F-21 - Manistee.

The Caberfae Look-Out Tower located just north of M-55 in the center of the Caberfae tract of the Manistee Forest, is a wooden structure one hundred and two feet high to the observation platform.

This tower is just nearing completion. The work has been progressing off and on during the last three months, or throughout the time when a Michigan winter is in full blast. Many structural difficulties were encountered due to faulty construction by the tower makers which slowed up the work.

Enrollees of Camp F-21, which is located at Pleasant Lake, fifteen miles from the tower sight, did all the field work on the tower. A temporary tarpaulin shelter with an Army stove was constructed so that when the men came down from working they might get warm. During the cold and windy weather no man was allowed to work in the air for more than a half hour at any one time. All off the ground workers were equipped with safety belts which were used.

A truck was left at the tower and the driver and leader in charge given specific instructions on what to do in case of an accident. With only about forty man days left to complete the tower which has only part of the cabin left to be done, not even a minor accident has occurred.

A PLANTING SURVEY ON THE MANISTEE PURCHASE UNIT
Charles M. Wheldon, Jr., Technician - Manistee

A planting survey was made on the Kellogg Tract which consists of a block of 13,672 acres of land located south west of Cadillac, Michigan in Townships 20 and 21 North, Range 11 West. In the past this tract supported dense stands of white and Norway pine, but today the only things to greet the eyes are numerous areas of open stump land, scattered patches of scrub oak and red maple, and occasional stands of inferior aspen.

The topography is rolling except for a few steep hills and ridges. The soil is practically all heavy sand with little variation.

Ninety-two per cent of the tract requires planting and eighty-five per cent of this amount can be furrowed. This relatively high percentage was obtained by the introduction of a preliminary clean-up operation which consisted of aligning old logs and debris parallel with the furrows, and the pruning of wolf trees. As a result of this work the furrows were straighter and the spacing was more uniform. This work was undertaken at a cost of one fifth man day per acre and resulted in a twenty per cent increase in production. It will also add materially to the ease and uniformity of planting.

A grub survey based on ten scalps per forty acre tract was made on 5,500 acres with the following results:

<u>Type</u>	<u>Grubs per Acre</u>
Open	148
Moderate forest cover	204

The above figures indicate that grubs are more prevalent under forest cover than in the open. This apparent contradiction to the usual findings may be an incidental result of the exceptionally low grub count per acre rather than any conclusive evidence of where grubs are most likely to be found on this area. However, a survey of 5,500 acres furnishes sufficient information to indicate that the grub situation of this planting project will not be a serious one.

* * * * *

Assistant Supervisor Nowcomb of the Nicolet is the proud father of a potential Forest Ranger - weight 9 pounds.

Harry Adams, Regional Office Fish and Game Specialist, and John Camp, Rehabilitation Expert, are also wearers of paternal smiles because of new arrivals in their respective homes.

* * * * *

John Camp, Rehabilitation specialist, is also headed for Washington. It's odd, but all our good men are going up ahead.

Madison, Wisconsin,
August 5, 1935.

Regional Forester,
U. S. Forest Service,
Milwaukee, Wisconsin.

Dear Sir:

We are quoting a letter received from B. W. Parks, Camp
Supt. ECW Camp 89-S Upson, Wisconsin:

"Do not think this comes under 'Construction Hints'
but we have found it a good thing.

"Have the buckle on the back of the army overalls
cut off as it wears a hole in the back of the seat in no
time. This is the buckle that tightens up the waist of the
overalls. This applies to truck drivers and cat men.

"The above idea comes from our Mechanic, Henry M.
Hovde."

This is a hint which will save a lot of wear on the seats
in cats and trucks. I can subscribe to this, personally, as being
a means of ruining seats very quickly.

A. E. Barnes, Junior Admin. Officer,
In Charge of ECW - Wisconsin.

* * * * *

PLEDGE TO OUR FLAG

I pledge allegiance to the flag of the United States of
America and to the republic for which it stands. One nation in-
divisible, with liberty and justice for all.

THE AMERICAN'S CREED

I believe in the United States as a government of the people,
by the people, for the people, whose just powers are derived from
the consent of the governed; a democracy in a republic; a sovereign
Nation of many Sovereign States; a perfect Union, one and inseparable,
established upon those principles of freedom, equality, justice and
humanity for which American patriots sacrificed their lives and for-
tunes.

I believe it is my duty to my country to love it; to support
its Constitution; to obey its laws; to respect its flag; and to
defend it against all enemies.

* * * * *

MANISTEE NATIONAL PUBLIC RELATIONS WINS!

Lloyd Vogt, T. F., F-16

Manistee National Forest accepted the bid from the city of Manistee to participate in the Homecoming Parade on July 4. The theme chosen for the Forest Service entry was "FOREST HISTORY". Five floats were necessary to appropriately depict this subject, and they were constructed on 157-inch wheelbase Chevrolet trucks.

Manistee River Camp at Brethren entered "Logging", and "Fire". Hoxeyville Camp at Hoxeyville was selected to portray "Planting Old Burn". Walhalla Camp very nicely handled the "Protected New Growth" side of the question. Irons Camp handled "Forest Crop -- 1975" in a fitting manner. The judges for the parade awarded first place for the Forest Service Unit to Manistee River Camp, second prize to Hoxeyville Camp and third place to Walhalla.

Many favorable comments were received for the efforts that the Forest Service extended and now the same floats will be entered in the Cherry Festival parade at Traverse City, Michigan on July 19.

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THE STORK WON'T WAIT

H. C. Hurley - Clark

For six long weeks I've waited
For my cheque from day to day,
My excuse is getting weaker
Now I've got to have some pay.

Explanations have been handed
To the landlord and cafe,
To the doctor and the dentist,
And garages on the way.

They have taken my face value
And the man behind the plow
Offered, Sir, to lend me money
When he sold a Jersey cow.

All have waited all have listened,
But one bird who don't ask why,
Yes the doctor says he's coming,
On the fourth day of July.

Bringing us a Betty Franklin
And a bill that says collect,
So you see now, why the hurry
That I really get my cheque.

"BOUYON"

C. C. Buenger, Assistant Nurseryman
Chittenden Nursery - Manistee

The lumberjack called it bouyon - we call it soup - and it is made of tasty ingredients, water and heat. Bouyon builds muscle, stamina and endurance.

In nine Regions of our country we have a different type of bouyon. Men and women bound together under the name of Forest Service.

The ingredients of the bouyon are represented by men and women of training and character - willing to sacrifice personal comforts for the sake of a chosen ideal.

Water represents the spirit of accomplishment depicted in terms of reports, charts and records of satisfying reference. A record of proud and solid advancement in forest problems.

Heat is portrayed as a pageant of administrative personalities burning "midnight oil" for the purpose of formulating policies, compiling manuals and organizing a gigantic maze of executive machinery.

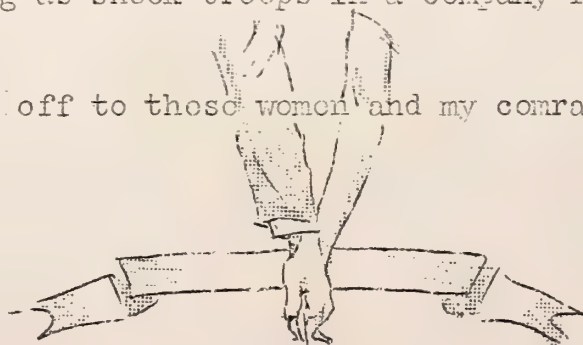
But in all this vast organization what is the power - the appetite - for consuming this allegorical bouyon? What unsung and unmentioned persons urge each of us to greater efforts? Is it alone our interest in forest accomplishments that urges us onward? After all, which is the prouder honor - a word of praise from our superior officer or a sign of endearment from the one we love?

Our loved one may be a mother, a sister, a wife or a sweetheart. Often she is making a sacrifice as severe as the pioneer women. Then too, throughout the Service there are women employed in meticulous duties and intricate tasks, all working in the same spirit as you and I. Ever present is this feminine background of personal hopes, loving encouragement and tender words of praise for our successful conclusion of a job well done. Is not each of these emotional reactions a vital and sustaining part of our Service?

In our individual efforts to place our willing shoulders to the wheel of Forest Service advancement, let us not forget the women in the Service and the women closely allied with the Service. Their names are not blazoned in the records but where would the Service be without them?

In a solid line stands the First Lady of the Forest Service, the Foreman's wife, the Chief's secretary and the newly appointed file clerk - advancing as shock troops in a company front behind the men clad in green.

My hat is off to these women and my comrades join me in the salute.



WATER A LA MODE FOR FIRE FIGHTING

Many Forest Officers who have fought stubborn fires that were burning hot have wished that they could hook onto a high pressure hydrant and deluge the fire with water. In some portions of the country this is a dream that has been classed in the category of fantasy. As with many other things, however, the emergency work programs have been bringing realization to this fantasy in some National Forests.

It is thought that Foresters in Region Nine will be interested in the following quotation from "Conservation Activities" which is a monthly bulletin put out by the Conservation Association of Los Angeles County. The item relates to work being done on the Angeles National Forest.

WATER DEVELOPMENT ON ANGELES NATIONAL FOREST

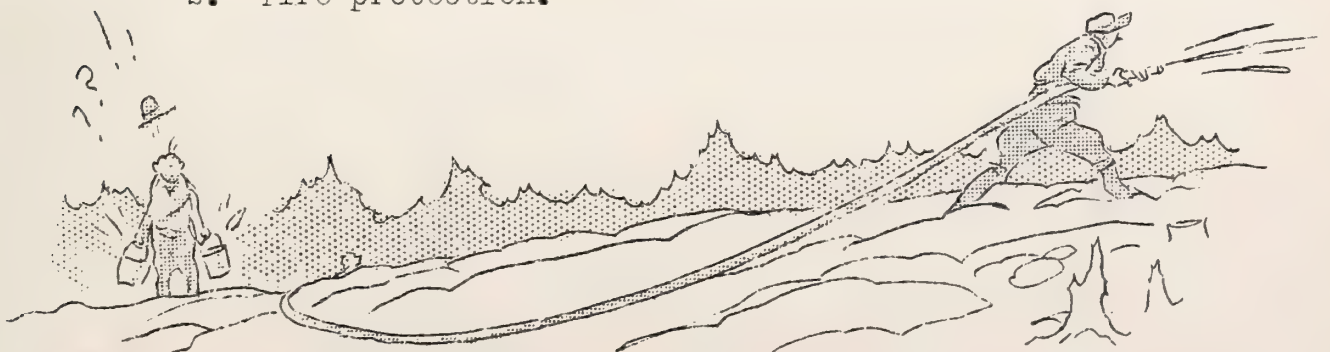
"Work has been completed on the Icy Springs water development system in Big Rock Creek Canyon, Valyermo District. This consists of a cement dam, a 10,000 gallon water storage tank, and $1\frac{1}{2}$ miles of 3 inch iron pipe line. Fire hydrants have been installed on this line at logical locations.

"Water Development in the San Dimas Canyon. This Fire Protection Water System is under construction. Upon its completion it will protect 125 summer homes and approximately three miles of mountain watershed. The system will branch up the West Fork for $1\frac{1}{2}$ miles on 4 inch main line and a 6 inch line will go up the East Fork. This line will have a maximum gravity pressure of 345 pounds. Take-off hydrants will be spaced every one-fourth mile. Ample water storage is being provided to supply this system in any emergency.

"These are only two of several major water developments on the Angeles National Forest.

"In developing these supplies of water throughout the Forest we are accomplishing two very important things:

1. Domestic use of water.
2. Fire protection."



THE INFLUENCE OF PUBLIC RELATIONS
ON FOREST MANAGEMENT IN THE MISSOURI OZARKS
Waller H. Reed, Junior Forester - Clark

During the year and a half since the Forest Service was introduced into Missouri, we foresters have been giving serious thought toward constructing the best suited plans and policies with which to manage the newly acquired forest units. The situations presented by these new forest areas are widely different from any of those coped with in the forests of the West. The problem is one of building new forests where once virgin stands were present. It is a problem for real foresters to solve.

But aside from the technical standpoint of forest management, we have a grave problem of public relation nature confronting us. It would be a futile attempt to set up elaborate, concrete forest management plans and policies only to see them fail due to unsound public relationships.

Many of the inhabitants of these Ozark hills have been carried from generation to generation with the understanding that they possessed rights and privileges. Sound reasoning by proper authority has proved these so called benefits received from those said privileges are fallacious. Therefore, it becomes evident that we must instigate educational measures whereby we can demonstrate to these people their incorrect policies. Through concentrated and continued effort and painstaking technique, we must show these people the damage they do and the fact that they do not receive the benefits that are supposed to be derived from burning the woods, over-grazing, etc.

From the foregoing one may get the impression that nothing has been done along the lines of public relations work. On the contrary, every employee of the Forest Service does a bit of public relation work when he contacts and talks with the local residents. His leaving a good impression is of utmost importance, for the people here will judge the Forest Service by its representatives.

One thing I wish to bring out especially, is the fact that many of the local residents, whom we have fairly well convinced that the Forest Service intends to aid them and do constructive work which will be a benefit to the entire Nation, are concerned about possible evil affects of fire prevention. For many years the people have had the idea that burning the woods keeps the ticks from reaching the epidemic stage. They claim that early spring fires destroy enough of the ticks to keep them from reaching such immense numbers for that year and now that fires have been stopped in many areas, the ticks are becoming far too numerous for safety of cattle and other animals. We, as foresters, know the devastating damages of forest fires and will not tolerate burning of the woods. Therefore, we must carry on our educational work and include in that work some measures with which to cope with the "burning for tick control" belief.

Another practice which has been carried on for several years is the so called "grandma-ing" of timber. It seems that no one has ever

done much toward stopping this timber stealing. I have heard it said that even a respected citizen, who is honest in every way, has or does often "grandma" timber. In other words, timber stealing has never been a grave offense here. We must cope with this problem through our educational channels as much as possible, for harshness breeds enemies and it is friends we must have in order to successfully continue our work.

We can rebuild the forests of the Missouri Ozarks and rehabilitate the people residing within our forest units through sound forest management, but not forest management alone.

Therefore, our policies must not only include the principles of technical management, but also proper management of our public relation problems and situations. Both are equally important to continued success of the Forest Service in Missouri.

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RESULTS OF FISH CENSUS
John T. Van Norman, Foreman
Camp F-16 - Manistee

Seven hundred and twenty-four fishermen waded the waters of Pine Creek, Bear Creek, and Tippy Dam on the Big Manistee between the hours of eight A. M. and four P. M. during the month of May. This figure does not include the anglers who frequented the waters on Mondays and Tuesdays as no census work was done on those days.

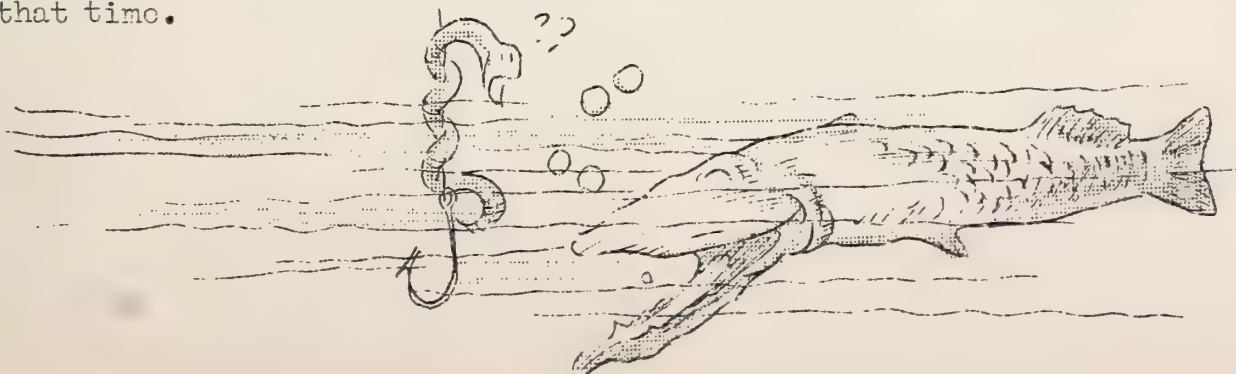
Pine Creek yielded some fine catches of brook trout the first of the season.

Bear Creek has produced some fair catches of trout but seems to overrun with undersized fish. Fishermen report taking as high as twenty to thirty small fish in a day. However, many of these undersized fish have been brook trout, which is a somewhat favorable outlook for future "speckled" fishing.

Tippy Dam has been the scene of some fine battles with big rainbows, walleyes, and great northern pike.

Many fishermen left the dam with good fish and memories of thrilling moments that only these big fish can provide; but many more, three hundred and thirty one to be exact, came away empty handed.

Fishing on the Little Manistee has been fair but the best fishing for Brown Trout is late in the evening and no census was taken at that time.



MANAGEMENT AND RECREATION

Gerald M. Schroeder, Junior Forester - Clark

In consideration of the general definition of forest management, which pertains to the determination of the practicability of Forestry and the conduct of the work necessary to treat the forest profitably and at the same time guarantee its continuity of production, we must not overlook the recreational aspects.

As a supplementary definition, with regard primarily to recreation, we may assume the following to be fairly consistent, as a basis for a good plan. Recreational management pertains to the determination of the practicability of recreational development, its demand and the resources available to supply this demand, with further consideration as to the type of work necessary to insure its profitable development, yet not interfering with good forest management, at large.

Recreational management does not deal primarily with the production of crop trees, but recognizes timber from the aesthetic standpoint. For example: a superlative area cannot be treated in the same respect as an area assigned to the production of forest crop trees, this type of an area being restricted to very little development with the exception of nature study trails, etc.

The management of a natural area in the strict sense of the word, is practically negligible. The only type of work necessary in such instances being to keep the forest in its natural state and with no artificial development of any kind. Obviously, since there is to be no cutting on either of these, there must be a different plan of management than for the forest at large.

Considering, now, the tracts set aside for playgrounds, camp sites, summer home sites, etc., there is again a need for a specific type of management. Thinning in many cases is necessary along with a general cleanup plan. Care must be genuinely observed so that only enough cutting is done to adequately permit free circulation of air and at the same time eliminate insect infestations to a certain extent.

With these factors in mind, the necessity for a definite recreational management plan is obvious, which may or may not be applicable to every situation. The general topographic features of the tract at large will play an important part in the main features of the plan. For example in the Lake States the most desirable recreational areas may be the gentle slopes to a lake; whereas, in Missouri the general type of area most desired is that which is more rugged. It is in such tracts that there is the greater demand for development, due to a number of reasons; possibly the primary reason being that the shore lines of the various rivers are subject to very sudden rises, due to the rapid run-off in the drainage areas. Secondly, these sites have the outstanding scenic values.

Since recreational developments are more readily completed and therefore more obvious to the general public, a definite standard is necessary to insure the efficient establishment of such tracts.

HICKORY - THE FORGOTTEN TREE

William L. Hatch, Technical Foreman - Clark

To date hickory has received very little attention in our management plans. This species is very badly damaged by rot, which has its prime port of entry through abrasions caused by fire. Since it has been Ozark tradition to burn the woods annually, Missouri has very little good hickory.

Unlike many species of trees, rapid growth improves the quality of hickory, thus making it especially suitable for the better sites. It reproduces well, both from sprouts and seed, and under suitable conditions grows rapidly. It is not unusual for a hickory tree to grow from one-third to one-half of an inch in diameter per year. The fruit from the trees is of local value, and a high stumpage price is being paid for hickory bolts to be used for making handles. At the present time local handle mills are purchasing bolts at the rate of \$16. to \$20. per thousand board feet, delivered at the mill. Pine and oak delivered on the skidway brings only \$4. to \$8.

Hickory possesses certain qualities which make it the choicest material for tool handles, a fact which must not be overlooked when striving to do the greatest good for the greatest number of people in the long run. Its need for management is indicated by the fact that local mills are forced to draw their raw material from as far as one hundred miles.

Bearing these facts in mind, together with the desirability of a mixed stand, hickory deserves considerable serious attention in our management of southern hardwoods.

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U. S. FOREST SERVICE RESTOCKS OZARKS WITH TURKEYS

Arthur J. Connell - Gardner

If hunters will be satisfied with a minimum bag this season and next, the United States Forest Service will have restored the turkey population of the National Forest Units in Missouri almost one hundred per cent.

This month's report on the work being done with turkeys in the 40-acre pen at CCC Camp F-12 at Willow Springs shows that of a 79% hatch 332 poults were released in the woods, where repeated checks show them rapidly adapting themselves to their new surroundings.

The hills provide adequate range and water supply, and there appears to be no good reason why most of them should not reach maturity.

Their natural enemy is the fox, and roving dogs will no doubt take a considerable toll of the young birds, but Forest Service authorities have launched a campaign of education to discourage indiscriminate killing by hunters.

On the whole, local residents have readily cooperated with the Forest Service in producing new stock, and only a few of them have thus far failed to realize the importance of the work undertaken.

Washington has been favoring R-9 with so many visitors that it is difficult to keep track of them. Associate Forester Roy P. Headley paid an extended visit to the Region. Keplinger and Anderson accompanied Mr. Headley on his tour. Walker and Henze are now making the round of the Units.

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Forest Service Exhibits have been placed in all States of the Region with the present indicated attendance of over 650,000 people since July 1. Outstanding honors appear to go to the Upper Michigan with their exhibit at Escanaba and the combined Nicolet and Chequamegon show at Wausau.

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R-9 BULLETIN ISSUES WILL HENCEFORTH COME OUT ON THE LINE, - THE 25TH OF EACH MONTH, WITH A MORE PERSONAL TOUCH TO THEM. PERSONAL ITEMS ARE URGENTLY REQUESTED. ALL ITEMS MUST BE IN NOT LATER THAN THE 15TH FOR PUBLICATION THE CURRENT MONTH.

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